UGANDA BUREAU OF STATISTICS

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UGANDA AQUACULTURE CENSUS 2025 REPORT

APRIL 2026

This report presents key findings of the Uganda Aquaculture Census 2025 undertaken by the Uganda Bureau of Statistics (UBOS) in collaboration with the Ministry of Agriculture Animal Industry and Fisheries (MAAIF).

Additional information about the Census may be obtained from the Uganda Bureau of Statistics (UBOS), Plot 9 Colville Street, P.O. Box 7186, Kampala Uganda; Telephone: (256-414) 706000; Fax: (256-414) 237553/230370; Email: ubos@ubos.org; Website: www.ubos.org.

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PREFACE

The Uganda Bureau of Statistics (UBOS) in close collaboration with Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) undertook Uganda's first ever aquaculture census in May 2025. This was undertaken in line with the World Programme for the Census of Agriculture 2020.

The primary objective of the Uganda Aquaculture Census (UAC), 2025 was to gather comprehensive data on the aquaculture sector. The report has generated statistics on characteristics of aqua farms, production methods used by aquaculture farmers, types of inputs used in the sector and their source, extension services provided to the farmers, volumes of fish produced and sold by type and information on hatchery facilities. This information will be used by government specifically MAAIF, academia and researchers to track progress on government programs, make informed decisions, a basis for evidence-based implementation of aquaculture development projects and provision of aquaculture extension services to farmers in the aquaculture sector.

This report provides key findings from the UAC 2025 on aquaculture in Uganda.

The Bureau extends its sincere gratitude to the Government of Uganda (GoU), for funding the entire UAC 2025; to management and staff of MAAIF, and its agencies for providing technical support and actively participating in the implementation of UAC 2025, the District Local Governments (DLGs) for the support provided during census implementation, and the enumerators and supervisors who worked tireless for the success of the UAC 2025. Special thanks go to our esteemed respondents, who provided information on which the findings of this report are based.

We urge the stakeholders to utilize the census data and statistical information for planning, policy formulation, and debates for the betterment of the aquaculture sector and our country at large.

Chris N Mukiza (PhD)
EXECUTIVE DIRECTOR

EXECUTIVE SUMMARY

The Uganda Bureau of Statistics is pleased to present the final report for Aquaculture Census (UAC) 2025. The report provides comprehensive information on the characteristics of the aquaculture sector in Uganda. The information will provide a basis for guided planning, decision-making and monitoring of the sector.

Aquaculture Farms

The UAC 2025 established a total of 9,463 aquaculture farms in the country between July 2024 and June 2025. Findings further indicate that 67.7 percent of the farms were in rural areas.

By nature of production activities, 97.1 percent of the aquaculture farms practiced grow-out only, 2.1 percent practiced both hatchery and grow-out while 0.8 percent practiced hatchery only.

Fish Species Cultured

Tilapia, Catfish, and Mirror Carp were the most cultured species. Overall, 80.5 percent of the farms cultured Tilapia, 48.7 percent cultured Catfish, and 2.5 percent cultured Mirror Carp.

Production Methods used

Ponds were the dominant aquaculture production method, used by 92.3 percent of aquaculture farms, while 4.5 percent used cages and 2.1 percent used tanks.

Ponds: A total number of 24,348 ponds were found, 70.3 percent of which were stocked. Majority (67.0%) of the ponds were in rural area.

Cages: A total number of 3,135 cages were found, 58.3 percent of which were stocked. More than half (58.9%) of the cages were in urban area.

Tanks: A total number of 699 tanks were found, 71.1 percent of the which were stocked. About 71.6 percent of the tanks were in urban areas.

Other production methods used by the farms included Dams/reservoirs, rice-cum and aquaponics.

Production

The total aquaculture production was 65,444.0 MT between July 2024 and June 2025. Findings further indicate that 47,050.7 MT (71.9%) of the total production was from farms in the urban areas. Of the total aquaculture production, 82.4 percent was Tilapia, 17.3 percent was Catfish, and 0.2 percent was Mirror Carp.

Main Purpose of Production

Nearly eight (8) in every ten farms culturing a species did it mainly for sale. More specifically;

i) Tilapia, 88.6 percent produced Mainly for Sale and 9.7 percent produced Only for Own Consumption.

ii) Catfish, 81.5 percent produced Mainly for Sale and 14.5 percent produced Only for Own Consumption and

iii) Mirror Carp, 77.3 percent produced Mainly for Sale and 21.7 percent produced Only for Own Consumption.

Disposition: 87.8 percent of the total production was sold, 10.2 percent was consumed by the farmer, 1.6 percent processed, and 0.4 percent was lost.

Extension Services

Extension services were received by 53.3 percent of the aquaculture farms. There was no significant difference seen for farms in the rural and urban areas.

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LIST OF ACRONYMS

ACTT	Aquaculture Census Technical Team
CAO	Chief Administrative Officer
CAPI	Computer Assisted Personal Interview
DFO	District Fisheries Officer
FAO	Food and Agriculture Organisation
GDP	Gross Domestic product
GoU	Government of Uganda
GPS	Global Positioning System
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
SOFIA	State of Fisheries and Aquaculture
ToE	Training of Enumerators
ToT	Training of Trainers
UAC	Uganda Aquaculture Census
UBOS	Uganda Bureau of Statistics

GLOSSARY

Aquaculture – This is the farming of aquatic organisms such as fish, crustaceans, Molluscs and plants. It involves rearing aquatic organisms under controlled or semi-controlled conditions. For the purpose of the UAC 2025 fish farming was the main focus

Aquacultural farm (holding) – This is an economic unit of aquacultural production under single management, comprising all aquaculture facilities without regard to title, legal form, or size. There are two types of Aquaculture holdings: (i) Aquaculture holdings in the household sector – that is, those operated by household members; and (ii) Aquaculture holdings in the non-household sector, such as corporations, cooperatives, military, educational institutions, prisons, religious organizations, and government institutions. In UAC, Non-household farms also included farmer groups.

Aquaculture Production Method – This is the approach used to cultivate aquatic organisms. The method of aquaculture depends on the nature of facility used to culture the aquaculture type. Aquaculture production methods may be Water-based or Land-based.

Aquaculture credit - This is a specific type of agriculture credit that is provided to support fish farming and other aquatic production activities. It refers to loans or financial assistance given to fish farmers, hatcheries, or aquaculture enterprises to finance aquaculture-related operations.

Aquaponics – This is a production system that combines aquaculture (fish farming) with hydroponics (cultivation of plants in water). It is the practice of raising aquatic animals and plants in a recirculating system that combines aquaculture and hydroponics.

Fish Seed – This is the young or juvenile stages of fish or other aquatic organisms used for stocking in aquaculture systems. For this study, fish seed will include fry, fingerlings, or juveniles.

Fry – This is a young fish that has just hatched. A fry is about 1-2cm and weight of below 5g.

Fingerling - A young fish which has fully developed fins and scales. It is typically 3-15 centimetres long and ready for stocking into grow-out systems.

Production Culture – This refers to the number of aquaculture species cultured within the same production unit.

Monoculture – This refers to the production method where a single species is farmed in a production unit at a time.

Polyculture – This refers aquaculture production method where two or more species with complementary habitat niches and feeding characteristics are raised in a production unit to increase productivity.

Holder – This is defined as the civil person, group of civil persons or juridical person who makes the major decisions regarding resource use and exercises management control over the aquacultural holding operation.

Legal status of the holder – This is the juridical aspect under which an aquaculture holding is operating. The term “Legal status of the holder” or “Type of holder” is not necessarily confined to the holder’s legal characteristics; it concerns broader aspects of identifying specific types of holdings. From the juridical point of view, a holding may be operated by civil persons, either by a single individual, or jointly by several individuals (group of civil persons) belonging to the same or to different households, with or without contractual agreement. A holding can also be operated by a juridical person who is neither an individual nor a group of individuals, such as a corporation, a cooperative, a governmental institution, a church, etc.

Legal status - “Legal status of the holder” or “Type of holder” is not necessarily confined to the holder’s legal characteristics; it concerns broader aspects of identifying specific types of holdings. The legal status of a holder may be; Civil persons, (a single individual), group of civil persons (jointly by several individuals belonging to the same or to different households) and Juridical person.

Grow-out aquaculture farm – This is an aquaculture facility where fish seed are raised until market size under controlled or semi-controlled conditions.

Hatchery – This is a specialized facility for breeding, hatching and raising the early stages of aquatic organisms for example eggs and larvae before transferring them to the nurseries or grow-out systems.

Household – This is a person or group of persons who normally EAT and LIVE together. This is not the same as a family.

Water-based aquaculture production methods are those practiced within a natural permanent water body such as lakes. They may include cages, pens, among others**.**

Land-based aquaculture production is practiced outside a permanent water body e.g., in rice fields (rice-cum), ponds, tanks, raceways, small dams and reservoirs and other land areas.

CHAPTER ONE: INTRODUCTION

1.0 Background

Aquaculture is one of the world's fastest-growing food-producing sectors, driven mainly by the need to meet the rising demand for fish amidst declining fish stocks and stagnant production from capture fisheries (Egessa & Sandor, 2022). According to the FAO (2024) "State of World Fisheries and Aquaculture" (SOFIA) report, aquaculture surpassed capture fisheries as the main producer of aquatic animals with the farming of aquatic animals reported to be 94 million MT representing 51 percent of the total fisheries production in 2022.

In Uganda, fishing (capture fisheries and aquaculture) contributed 2.0 percent to the Gross Domestic Product (GDP) and 7.8 percent to agricultural GDP for the Financial year (FY) 2024/25 (UBOS, 2025).

Over the past few years, aquaculture has emerged as a dynamic sector contributing to the national economy and providing livelihoods to many communities in Uganda. However, the sector has limited structural data, despite its significant potential of contributing to food security, employment, and economic growth. The absence of detailed information on aquaculture activities, production methods and production volumes limits efforts to make informed decisions and effective policies in the sector.

The Uganda Aquaculture Census (UAC) 2025 is directly relevant to the Fourth National Development Plan (NDP IV) as it supports the Plan’s overarching goal of accelerating industrialization and inclusive growth through evidence-based decision-making.

Therefore, the Government of Uganda (GoU) through the Uganda Bureau of Statistics (UBOS) undertook the first Uganda Aquaculture Census 2025 to provide comprehensive information about the sector.

1.1 Legal Framework

The Uganda Bureau of Statistics (UBOS) Act, 1998 CAP 333 Laws of Uganda 2024 provides the legal authority for conducting a Census. One of the main Fundamental Principles of Official Statistics is ensuring confidentiality of the data collected and this is stipulated in Section 19 of the Act. Consequently, all field officers swore the Oath of Secrecy administered by or on behalf of Executive Director and Chief Magistrate. This formed the legal basis for undertaking the UAC 2025 and adherence to data privacy and protection protocols.

1.2 Objectives

The general objective of the aquaculture census was to generate data on the structure of aquaculture sector and production levels.

The specific objectives were to;

1. Establish the number of aquaculture farms in the country
2. Establish the number of farms with aquaculture facilities
3. Establish the production methods used
4. Obtain data on production by species
5. Obtain data on access to aquaculture extension services

1.3 Organisation of the Census

The governance structure for the Uganda Aquaculture Census (UAC) 2025 was comprised of the UBOS Board of Directors, which provided overall policy guidance and institutional oversight for the census supported by the Census Management Team (CMT), which was responsible for the day-to-day planning, coordination, and supervision of all census activities.

The Executive Director of UBOS served as the head of all operational and technical matters related to UAC 2025, ensuring effective implementation in line with national statistical standards and strategic objectives. Reporting to the Executive Director and the CMT were Regional Supervisors, who oversaw census operations across the designated statistical sub-regions and ensured consistency in data collection, quality assurance, and adherence to timelines.

At the district and city levels, Area Supervisors were appointed to coordinate field activities and provide direct supervision of enumerators and field teams. These supervisors comprised staff from UBOS and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), working closely with District and City Fisheries Officers as well as District Planners to strengthen local coordination and administrative support.

The census was successfully implemented across all 135 districts and 11 cities of Uganda, ensuring comprehensive national coverage and effective stakeholder engagement at both central and local government levels.

1.4 Census Implementation

1.4.1 The Pre-Enumeration Phase

1.4.1.1 Development of Tools

UBOS undertook stakeholder consultations to ensure that official statistics, on aquaculture, are useful to the stakeholders. This involved consulting Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), National Fisheries Resources Research Institute (NaFIRRI), Aquaculture Research and Development Centre (ARDC), and selected district Local government who provided their data requirements.

These data requirements informed the development of the tabulation plan and the questionnaire that was administered to both household and non-household-based farms.

The questionnaires collect information on a wide range of household and non-household-based farms characteristics. To ensure data quality, editing checks were embedded in the questionnaires. The Census and Survey Processing System (CSPro) application was programmed and used to collect the data with clear skip patterns and validation rules to avoid errors during data collection.

1.4.1.2 Pre-test

Pre-tests were undertaken in Buikwe District to determine the strengths and weaknesses of the census tools in terms of question wording, flow, consistency, redundancy of sections and questions, sensitivity and reliability. The pre-test also tested the time required to administer

the questionnaire. After the pre-test, staff shared their feedback regarding their experiences with the tool and this was used to improve the census questionnaire and other census tools.

1.4.1.3 Census Management, Recruitment and Training

The UAC 2025 was managed by UBOS and MAAIF staff from planning to execution, as well as monitoring of the enumeration activities. The District Fisheries Officers (DFOs) and District Planners/Statisticians supervised the census enumerators at the district level with oversight from the Chief Administrative Officer (CAO). An Area Supervisor, from UBOS/MAAIF was also assigned to selected group of districts to oversee the implementation of enumeration activities in those districts. Census implementation comprised the following core teams.

1) National Supervisors
2) Regional Supervisors
3) Sub-regional Supervisors
4) District Area Supervisors
5) District Fisheries officers
6) District Planners/Statisticians
7) Enumerators.

Recruitment

Recruitment of enumerators was centrally done by UBOS through an electronic system and a total of 283 enumerators were recruited to collect data across all districts of Uganda.

Training

Aquaculture census staff and enumerators were trained on census concepts and definitions and use of the CSPro application for data capture.

Two levels of training were held; for Training of Trainers (ToT) and Training of Enumerators (ToE). During the ToT, selected UBOS and MAAIF staff were trained on the census tools and implementation modalities. During the ToE enumerators and supervisors (DFOs and Planners/Statisticians) were trained. The combined training ensured that the supervisors and the enumerators get similar information at the same time to reduce distortion.

The trainees were grouped into classes to ensure quality training. Each class had a maximum of 70 trainees to maximise interaction of trainee and trainer especially during the question-and-answer sessions. The training used power point presentations, manuals, questionnaires and photos to facilitate better understanding of key aquaculture concepts. Hard copy training materials, such as manuals that contained the questionnaire were also provided to each trainee. Attendance of the enumerators was regularly tracked by signing of attendance lists while WhatsApp groups facilitated communication and provided timely response or feedback on any emerging issues during training.

1.5 The Enumeration Phase

Enumeration was conducted in the following way:

1. The Census Reference period was the period from July 2024 to June 2025, that is, a 12-months period in which a farmer is able grow fish to maturity. All aquaculture farms were enumerated based on their location.
2. Aquaculture farms were identified by the guidance of the District Fisheries Officer (DFO).
3. The enumeration started on 14th May and continued up to 13th June 2025.
4. The enumerators moved from farm to farm conducting face to face interviews and using tablets loaded with the Computer Assisted Personal Interview (CAPI) application. The field management processes, including monitoring of data, field staff performance and other quality control processes were also automated.
5. Access to the enumeration application was by use of login credentials.
6. Trained enumerators moved from farm-to-farm within the assigned district and administered the questionnaire to the most knowledgeable respondent at the farm.
7. Supervision areas for IT and Data Management staff were created. UBOS deployed IT staff to manage the sub-regions by supporting all the District/City Area Supervisor.
8. During enumeration, upon completion of an interview, the enumerators would immediately send data directly (synchronize) to the server, from their tablets. The data was downloaded daily for all questionnaires. A Network Operations Centre (NOC), referred to as a situation room, was set up for real-time monitoring of the progress on data collection, and to monitor the daily spatial coverage. This played a significant role in ensuring data quality and

coverage. The use of digital equipment through which each enumerator synchronized data straight to the head office, eliminated the data entry and preliminary editing processes and facilitated timely compilation of the report.

1.6 Technical Support

At the UBOS, an Aquaculture Census Technical Team (ACTT) was constituted to support enumerators with any issues related to the application or the data collection devices. In addition, each enumerator was provided with a detailed user manual and quick reference guides to assist in troubleshooting common problems.

1.7 The Post-Enumeration Phase

The post-enumeration activities that were conducted included retrieval of electronic devices from the field by Area Supervisors, data processing, analysis and dissemination of the final report.

1.7.1 Data Management and processing

Enumerators regularly synchronized data collected in the field to a central database and census data was automatically backed up to ensure no loss of data. In addition, there was real-time data validation as the CAPI had inbuilt validation rules that ensured data accuracy. Inconsistent and Improbable responses were flagged for immediate correction with the help of a field staff. To enhance data quality, the census made use of regional, sub-regional, and district supervisors who monitored enumerator performance and conducted data reviews while HQ staff undertook data cleaning processes.

The census data collection and quality control was done using CSPro application while STATA18 was used for the final data edits and analysis. The analysis followed international best practices to provide for international comparison and present statistics for national context, where applicable.

1.7.2 Quality Control and Assurance

Comprehensive quality assurance was conducted across all the census phases to ensure production of quality data and statistics, in line with the data quality dimensions of, relevance,

methodological soundness, accuracy, timeliness, accessibility, coherence and comparability. In addition, the institutional environment within which UAC 2025 would be conducted, was continuously assessed to ascertain that the resources (human, financial and technological) available were sufficient to produce quality statistics.

During tools development (questionnaires, manual and CAPI application), independent reviews and testing were made to include the various needs of the different development frameworks, policies and strategies at both national, regional and international levels. In addition, these tools including the various Census software were tested and retested to ascertain proper functionality before they were deployed for use. These included the CAPI-questionnaire, and e-recruitment system. Further, the tablets and all the supporting systems for data collections including functionality, data transfer and management procedures and protocols were also tested.

To enhance the quality of data from the field, the in-built data editing checks were developed and implemented. The farms were located by the enumerators with guidance of the district fisheries officer enabling effective monitoring of field coverage as census data was being captured. The data processing and analysis was quality-assured using the data-editing guidelines, and tabulation plan, in addition to validation of draft tables and reports by peer reviewers.

1.7.3 Post Enumeration Validation

A Post enumeration validation exercise was conducted by selected staff of UBOS in the month of February 2026, covering 292 farms. The objective of the validation was to measure the coverage errors and content of the UAC 2025 as a technical validation process. The validation revealed a 99.9% net coverage.

1.7.4 Dissemination of Census Results

The main report for the Uganda Aquaculture Census (UAC) 2025 was officially released following completion of data analysis and validation. Detailed statistical tables in Excel format will be uploaded to the UBOS website to facilitate wider access and use of the census data by policymakers, researchers, development partners, and other stakeholders.

1.7.5 Risks and Mitigation measures

The Bureau identified and analysed key risks associated with the undertaking of the UAC 2025. Being a digital census, a number of risks were anticipated covering technologically related risks in areas of census planning, training and enumeration. Other risks anticipated were resistance from the public, disinformation, and climate change related risks.

1. **Limited skills by enumerators to use tablets during data collection.**

   This was mitigated by implementing a two-tier training programme to Training of Trainers for UBOS/MAAIF staff at national level and Training of enumeration supervisors and enumerators. This enhanced skill transfer to all census staff on use of tablets and concepts in the questionnaire. In addition, there was strengthened supervision, Monitoring and Evaluation during training and enumeration.

2. **Insecurity in selected areas**

   In areas like Karamoja where there was insecurity, field staff were accompanied by security forces to ensure their safety during enumeration and supervision.

3. **Possible Refusal to respond**

   Being an economic census, respondents usually are afraid of declaring their farm details. Therefore, UBOS worked with the district officers, who are their technocrats and put in place an advocacy & publicity team to address the fears of possible respondents.

1.8 Methodology

1.8.1 Scope and Coverage

The UAC 2025 was conducted in all districts of Uganda where there was presence of aquaculture. All farms were covered.

The census covered both freshwater and land-based aquaculture farms and data was collected on the following:

1. Farm characteristics

2. Production methods
3. Farm labour
4. Production and sales
5. Fish Species
6. Feeds and other Inputs used
7. Extension services
8. Hatchery production
9. Machinery and equipment
10. Aquaculture and climate change

1.8.2 Census Design

The census covered all districts with aquaculture activities in Uganda. The statistical unit of enumeration for the UAC 2025 was the aquaculture farm. Data collection was conducted using a complete enumeration approach, whereby all farms engaged in aquaculture activities were covered. All Aquaculture farms were visited to collect data for the various modules. Consideration of an aquaculture farm was based on the stocking of fish during the reference period.

The census reference period was July 2024 to June 2025, covering a 12-month production while data collection was undertaken from 14th May to end of June 2025.

1.8.2.1 Frame

The frame used for UAC 2025 is from the Uganda National Population and Housing Census (NHPC 2024) which was conducted in May 2024. In addition, this was supplemented with administrative sources on aquaculture register. This frame constituted all the aquaculture farms/holdings in the country. The census covered 9,463 aquaculture farms.

1.8.3 Data Collection Tools

The UAC 2025 utilized a structured questionnaire with various modules. The questionnaire was digitized to incorporate all the necessary fields for data entry, validation rules, and skip patterns. This approach leveraged digital technology to minimize errors and improve the overall quality of the data collected. Each enumerator was equipped with a tablet and a power bank to boost battery life during field fieldwork. Global Positioning System (GPS) functionality

was integrated in the questionnaire programming for precision in recording the location of each aquaculture farm while Land area, for land-based fish production facilities, was measured using a tape measure.

1.8.4. Data collection method

Enumerators conducted face-to-face interviews with aquaculture farm owners/managers using CAPIs. This ensured that all interviews were captured and relayed to the UBOS server/ Headquarters (HQ) in real-time.

1.8.5 Structure of the Report

The Report contains 7 Chapters namely, Chapter 1: Introduction; Chapter 2: Characteristics of Aquaculture farms; Chapter 3: Aquaculture Production Methods; Chapter 4: Aquaculture Production and Disposition; Chapter 5: Aquaculture Inputs and Extension Services; Chapter 6: Hatcheries; Chapter 7: Recommendations.

CHAPTER TWO: CHARACTERISTICS OF AQUACULTURE FARMS

Key Findings

- **Total Aquaculture Farms**: There were 9,463 aquaculture farms in the country. Of these, 6,408 (67.7%) farms were in rural areas, while 3,055 (32.3%) farms were in urban areas.
- **Nature of Production Activities:** 97.1 percent of the aquaculture farms practiced only grow-out, 2.1 percent practiced both hatchery and grow-out while 0.8 percent practiced hatchery only.
- **Infrastructure Facilities:** 36.8 percent of aquaculture farms had on-farm stores, 2.1 percent had fish processing units.
- **Source of Energy for Aquaculture Activities:** 6,653 (70.9%) of the grow-out farms reported had no energy for use in aquaculture production activities. Solar system was the most common source used by 1,050 (11.2%) farms.

This chapter provides an overview of the aquaculture sector, focusing on aquaculture farms in the country, their distribution across sub-regions, nature of aquaculture production activities, aquaculture infrastructure facilities, integration practices, and the main source of energy used in aquaculture production.

2.1 General Characteristics of Aquaculture Farms

2.1.1 Aquaculture Farms

The UAC 2025 results indicated that the total number of 9,463 aquaculture farms were recorded in Uganda. Of these, 6,408 farms (67.7%) were in rural areas, while 3,055 farms (32.3%) were in urban areas.

At the sub-regional level, Buganda, with 1,250 farms, recorded the highest number of aquaculture farms, accounting for 13.4 percent of the total while Kampala, with 20 farms (0.2%), registered the lowest number **(Figure 2.1, Figure 2.2 and Table 2.1)**. Details on district level disaggregation provided in **Appendix Table 2.2**.

Figure 2. 1: Percentage Distribution of Aquaculture Farms by Sub-Region

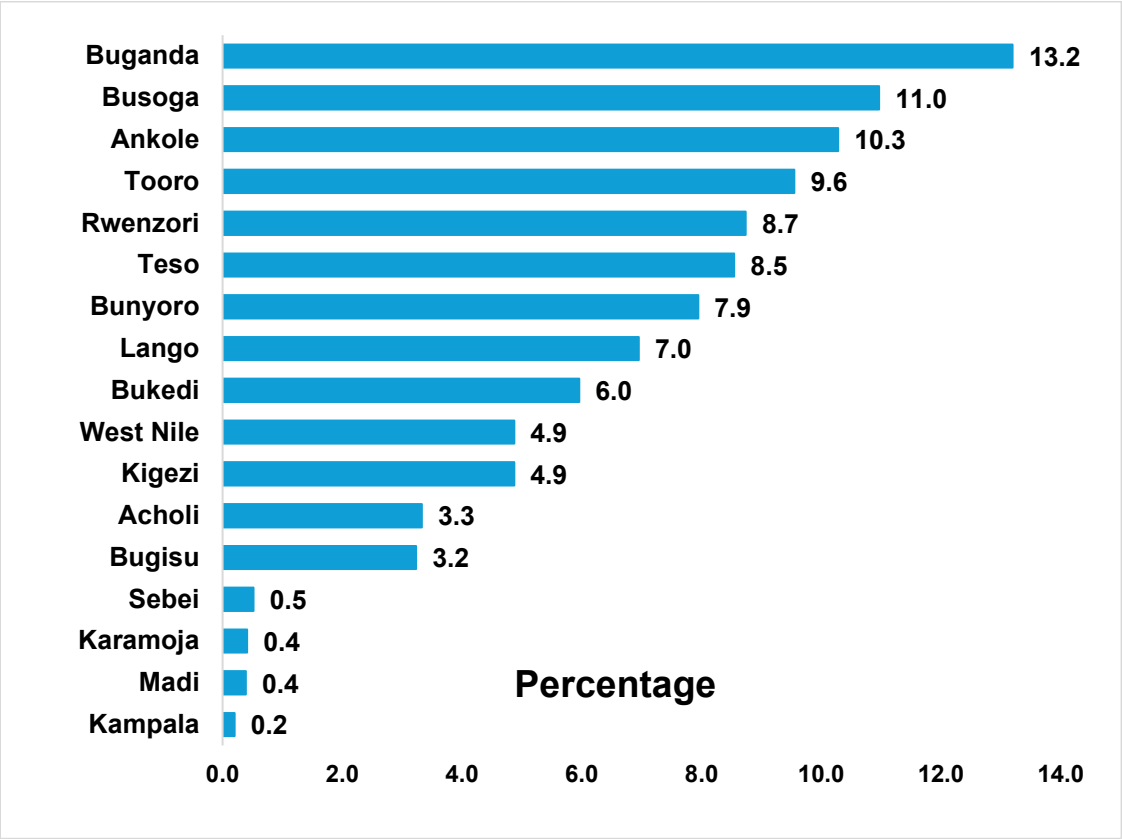
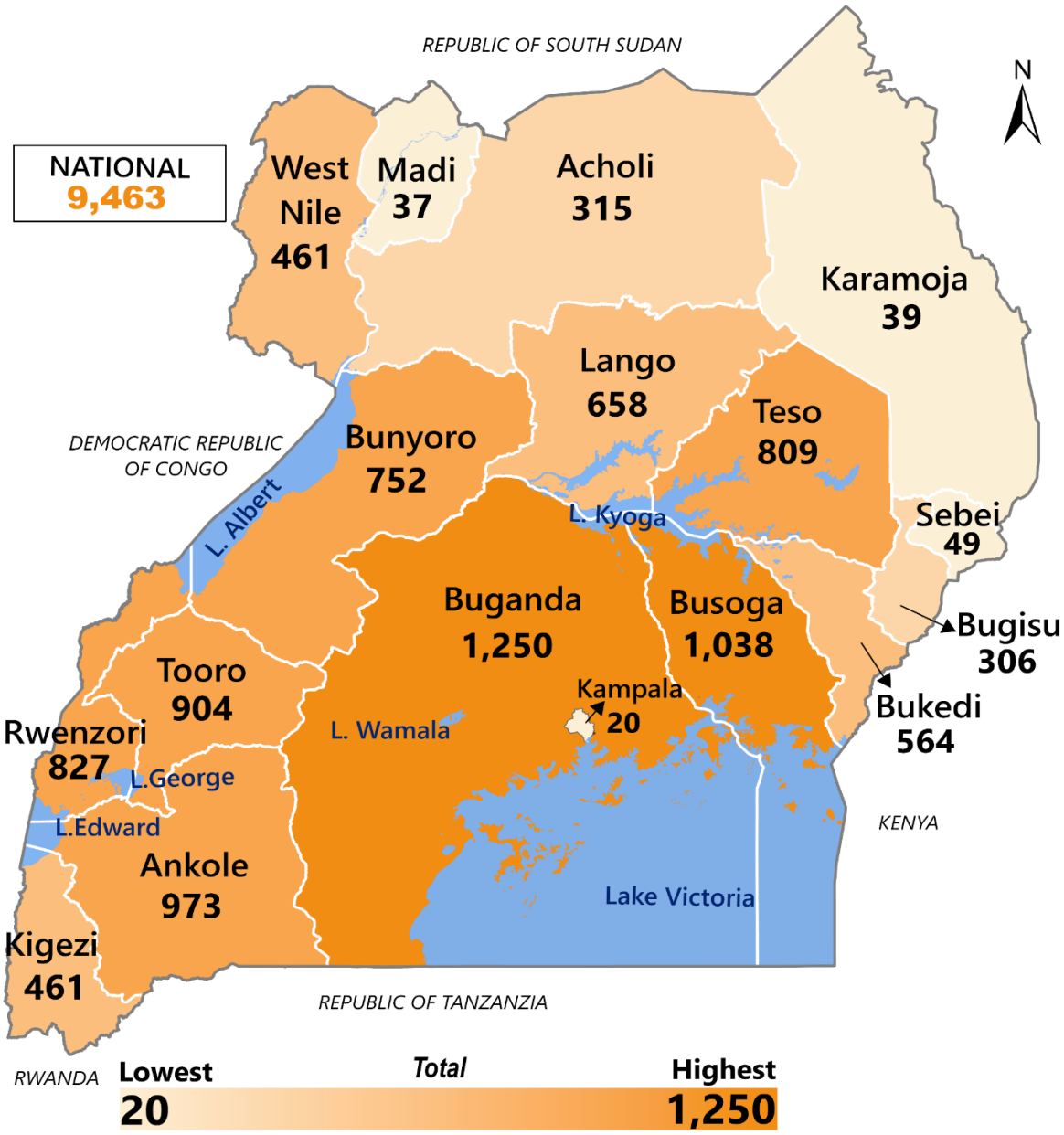


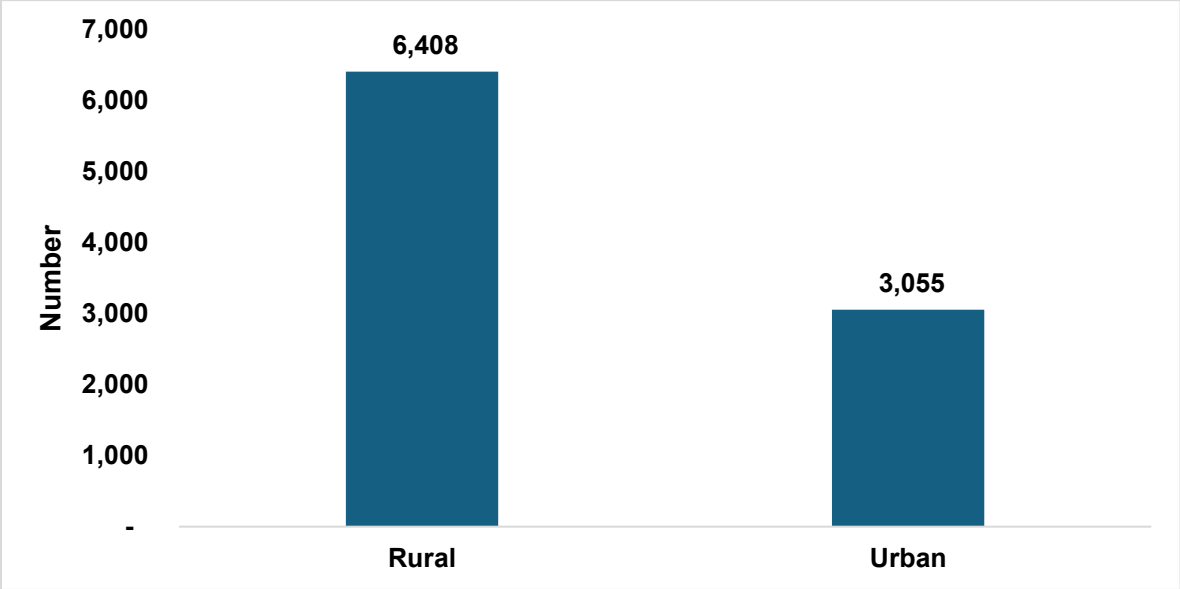
Figure 2. 2: Number of Aquaculture Farms



2.1.2 Farm Location

Results indicated that majority of the aquaculture farms (6,408) aquaculture farms were found in rural areas representing 67.7 percent while 3,055 (32.3%) were found in urban areas. **(Figure 2.3 and Table 2.1)**.

Figure 2. 3: Aquaculture Farms by Location



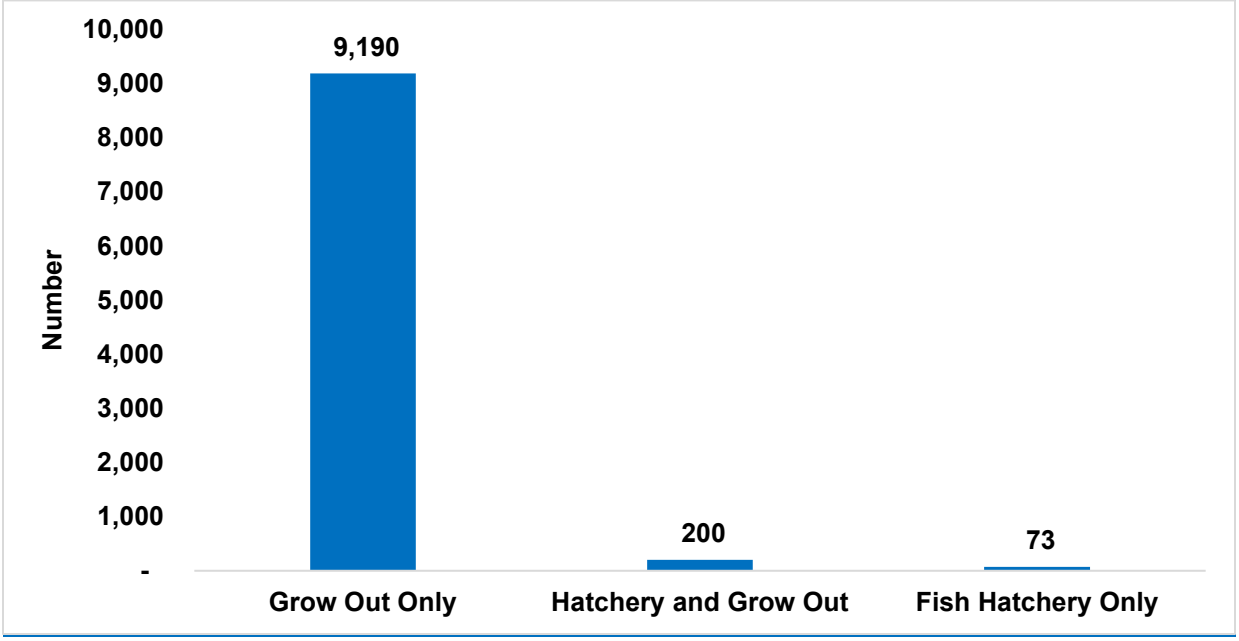
2.1.3 Nature of Production Activities

Aquaculture farms were categorized into three operational activities: grow-out only, both hatchery and grow-out and hatchery only.

The UAC 2025 results revealed that 9,190 (97.1%) aquaculture farms practiced grow-out only, 200 (2.1%) practiced both hatchery and grow-out, while 73 (0.8%) practiced hatchery only.

Sub-regional analysis indicated that Buganda with 1,250 (13.1%) had the highest number of farms that practiced grow-out only; Buganda with 57 (28.5%) had the highest number of farms that practiced both hatchery and grow-out, while Ankole with 22 (30.1%) had the highest number of hatchery-only farms in the country, **(Figure 2.4 and Table 2.2)**.

Figure 2.4: Number of Aquaculture Farms by Nature of Production Activities

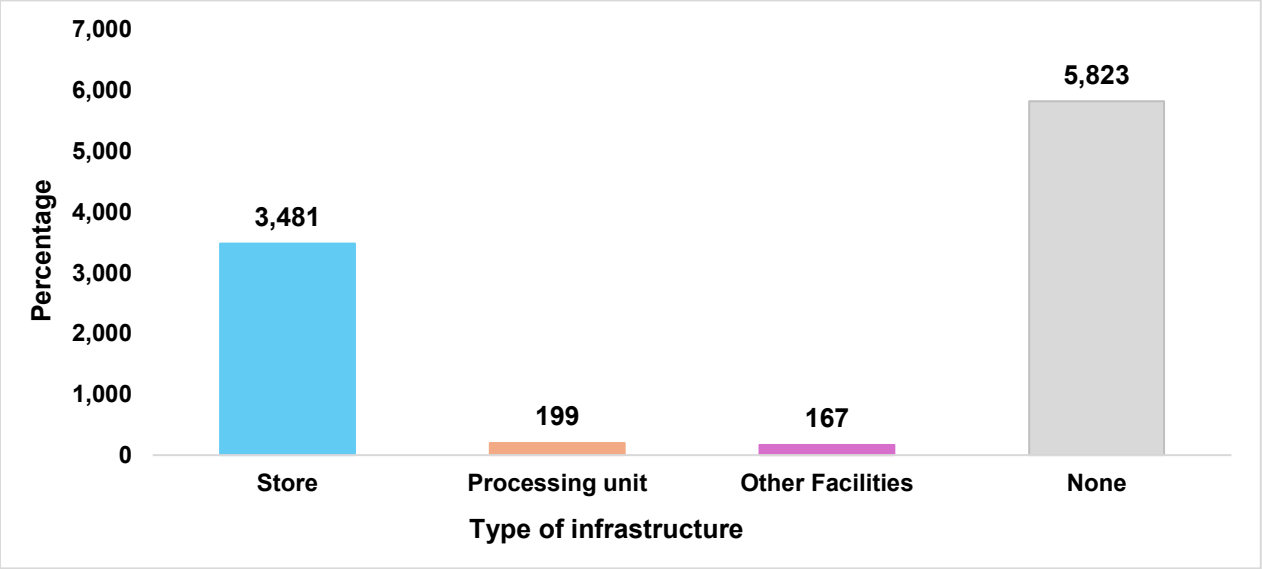


2.1.4 Infrastructure Facilities

As part of the Aquaculture Census, farmers were asked whether specific facilities were present on their farms. The facilities in question were on-farm stores, fish processing units, feed mills, and other supporting structures such as offices or cold storage facilities.

Overall, 3,481 of aquaculture farms had on-farm stores, 199 had fish processing units, and 167 reported having other types of infrastructure such as offices or cold storage facilities **(Figure 2.5 and Table 2.3).**

Figure 2. 5: Aquaculture Farms by Type of Infrastructure Facilities, Percentage



At sub regional level, Buganda with 662 had the highest number of farms with a store and Karamoja with 3 farms had the least number of farms with a store. In addition, Busoga sub-region with 44 farms reported the highest number of farms with a processing plant.

Important to note is that 5,832 farms had no store, processing unit and feed mill facilities. Karamoja with 686 farms had the highest number of farms with no aquaculture facility at all while Madi with 13 farms had the least number of farms with no aquaculture facility **(Figure 2.5 and Table 2.3).**

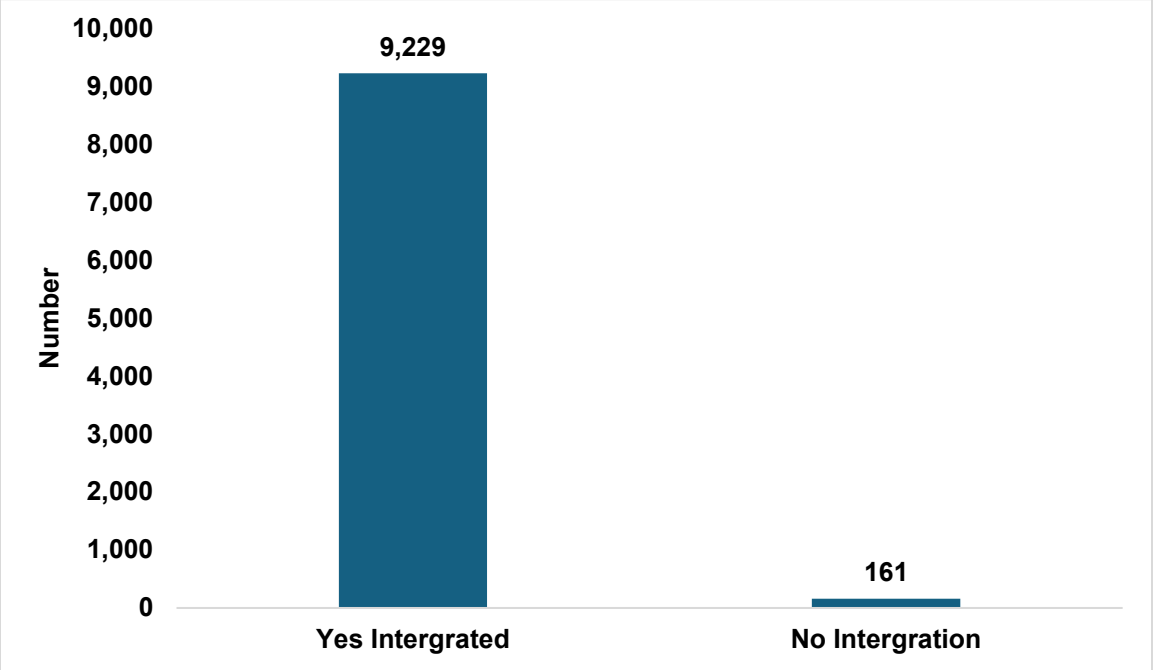
2.1.6 Integration Practices of Grow-out Farms

Aquaculture Integration – This is a farming system where aquaculture (fish farming) is combined with other agricultural activities like crop farming, livestock rearing, or horticulture to create a mutually beneficial, resource-efficient system.

Key Principle – "Waste" is treated as a resource. For example, pond silt rich in organic matter, is used to fertilize crops, while farm waste feeds the fish.

The UAC 2025 results revealed that 9,229 farms practiced integration representing 98.3 percent of the grow-out farms. Of those that practiced integration 6,251 farms (67.7%) were rural-based while 2,978 farms (32.3%) were urban-based **(Figure 2.6 and Table 2.4).**

Figure 2.6: Number of Grow-out Farms that Practiced Integration

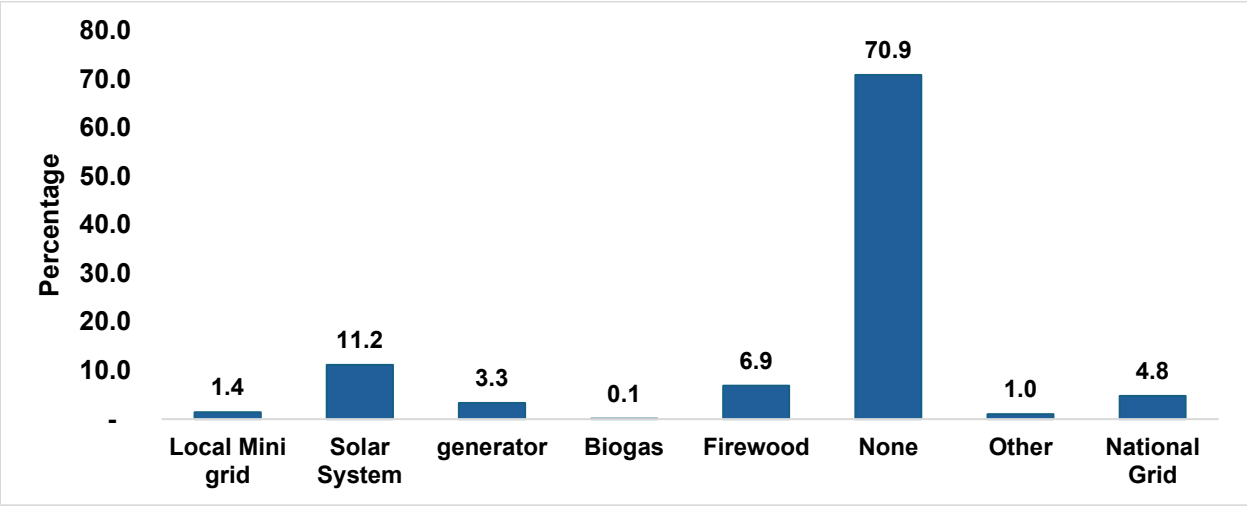


2.1.7 Main Source of Energy for Grow-out Aquaculture Farms

The UAC 2025 results indicated that nationally, 6,653 (70.9%) of the grow-out farms reported having no source of energy for use in aquaculture production activities. Solar system was the most common source used by 1,050 (11.2%) of all the farms, while the biogas was the least used by 11 (0.1%) of the farms **(Figure 2.7 and Table 2.5)**.

Notably, urban farms showed greater access to energy, with 309 (10.2%) of the farms connected to the national grid and 361 (11.9%) using solar systems to carry out aquaculture activities, compared to 142 (2.2%) and 10.8 percent respectively, among rural farms **(Table 2.5)**.

Figure 2.7: Percentage of Grow-out Farms by Main Source of Energy



At the sub-regional level, marked differences were observed. Buganda recorded the highest use of national grid electricity with 174 (14.0%) farms and solar systems with 286 (22.7%) farms, while Madi reported the highest reliance on solar energy (41.7%) alongside a similarly high proportion of farms with no energy source (41.7%). Bugisu and Karamoja recorded a relatively high use of firewood at (23.9%) and (34.2%), respectively. In contrast, Kigezi (85.1%), Sebei (87.8%), and Rwenzori (84.8%) recorded the highest proportions of farms operating without any energy source **(Table 2.5).**

List of Chapter Two Tables

For more information on farm characteristics and infrastructure facilities, see tables below.

Table 2.1: Aquaculture Farms by Location, number and percentage

Table 2. 2: Nature of production activities

Table 2. 3: Farms by Infrastructure Facilities

Table 2.4: Integration Practices of Grow out farms, number and percentage

Table 2.5: Main source of energy for aquaculture

Table 2. 1: Aquaculture Farms by Location, number and percentage

Background Characteristics	Farms	
	Total Number	Percent
National	**9,463**	**100**
Location		
Rural	6,408	67.7
Urban	3,055	32.3
Sub-Region		
Kampala	20	0.2
Acholi	315	3.3
Ankole	973	10.3
Buganda	1,250	13.2
Bukedi	564	6.0
Bunyoro	752	7.9
Busoga	1,038	11.0
Bugisu	306	3.2
Karamoja	39	0.4
Kigezi	461	4.9
Lango	658	7.0
Madi	37	0.4
Rwenzori	827	8.7
Sebei	49	0.5
Teso	809	8.5
Tooro	904	9.6
West Nile	461	4.9

Table 2. 2: Nature of Production Activities

Background Characteristics	Total Farms	Number of Farms that are:		
		Grow Out Only	Both Hatchery and Grow Out	Fish Hatchery Only
National	**9,463**	**9,190**	**200**	**73**
Location				
Rural	6,408	6,270	90	48
Urban	3,055	2,920	110	25
Sub-Region				
Kampala	20	18	1	1
Acholi	315	303	9	3
Ankole	973	919	32	22
Buganda	1,250	1,183	57	10
Bukedi	564	549	7	8
Bunyoro	752	741	11	-
Busoga	1,038	1,016	16	6
Bugisu	306	299	6	1
Karamoja	39	38	-	1
Kigezi	461	436	19	6
Lango	658	650	7	1
Madi	37	36	-	1
Rwenzori	827	802	16	9
Sebei	49	49	-	-
Teso	809	802	6	1
Tooro	904	891	10	3
West Nile	461	458	3	-

Table 2. 3: Farms by Infrastructure Facilities

Background Characteristics	Total Farms	Number of Farms with:			
		Store	Processing Unit	Other facility	No facility
National	**9,463**	3,481	199	167	5,823
Location					
Rural	6,408	2,212	94	107	4,086
Urban	3,055	1,269	105	60	1,737
Sub-Region					
Kampala	20	10	-	-	10
Acholi	315	83	8	2	231
Ankole	973	322	32	15	632
Buganda	1,250	662	36	28	570
Bukedi	564	217	6	-	347
Bunyoro	752	182	8	12	559
Busoga	1,038	602	44	2	434
Bugisu	306	177	12	1	127
Karamoja	39	3	-	1	35
Kigezi	461	146	17	8	302
Lango	658	179	12	13	468
Madi	37	24	2	-	13
Rwenzori	827	115	2	28	686
Sebei	49	28	1	-	21
Teso	809	191	11	48	571
Tooro	904	377	6	8	519
West Nile	461	163	2	1	298

Note: *A farm can have more than one facility, the numbers are not additive across*.

Table 2. 4: Integration Practices of Grow-out Farms, Number

Background Characteristics	Number of Grow out Farms	Integrated	No Integration
National	**9,390**	**9,229**	**161**
Location			
Rural	6,360	6,251	109
Urban	3,030	2,978	52
Sub-Region			
Kampala	19	19	-
Acholi	312	308	4
Ankole	951	939	12
Buganda	1,240	1,202	38
Bukedi	556	534	22
Bunyoro	752	743	9
Busoga	1,032	1,012	20
Bugisu	305	303	2
Karamoja	38	38	
Kigezi	455	446	9
Lango	657	644	13
Madi	36	35	1
Rwenzori	818	815	3
Sebei	49	48	1
Teso	808	796	12
Tooro	901	892	9
West Nile	461	455	6

Table 2. 5: Main Source of Energy for Grow-out Farms

Background Characteristics	Number of Grow out Farms	National Grid Connection	Local Mini Grid	Solar System	Generator	Biogas	Firewood	None	Other Sources	Not Stated
National	**9,390**	**451**	**128**	**1,050**	**308**	**11**	**644**	**6,653**	**90**	**55**
Location										
Rural	6,360	142	66	689	207	5	455	4,697	57	42
Urban	3,030	309	62	361	101	6	189	1,956	33	13
Sub-Region										
Kampala	19	15	-	-	-	-	-	4	-	-
Acholi	312	13	1	54	6	-	22	214	2	-
Ankole	951	30	24	70	48	2	30	743	2	2
Buganda	1,240	174	48	286	73	2	35	587	16	19
Bukedi	556	19	1	65	7	-	10	415	21	18
Bunyoro	752	14	21	83	33	1	13	579	3	5
Busoga	1,032	126	1	116	26	-	22	737	2	2
Bugisu	305	7	1	32	-	3	73	170	19	-
Karamoja	38	-	2	-	1	-	13	22	-	-
Kigezi	455	13	1	30	4	1	17	387	-	2
Lango	657	3	2	54	15	-	60	503	20	-
Madi	36	4	-	15	1	-	1	15	-	-
Rwenzori	818	3	21	53	6	-	39	694	2	-
Sebei	49	-	-	-	2	-	4	43	-	-
Teso	808	3	-	44	61	-	99	598	1	2
Tooro	901	24	3	93	11	2	169	594	2	3
West Nile	461	3	2	55	14	-	37	348	-	2

CHAPTER THREE: AQUACULTURE PRODUCTION METHODS

Key Findings

- **Aquaculture Farms by Production Methods**: 8,738 (93.1%) of the 9,390 grow-out aquaculture farms used ponds, 492 (4.6%) used cages, 198 (2.1%) used tanks and 243 (2.6%) used other production methods.
- **Total Production Units:** There were 24,348 ponds of which 70.3 percent were stocked. Cages were 3,135 and 58.3 percent were stocked. Tanks were 699 and 71.1 percent were stocked
- **Production Culture:** 7,240 (77.1%) of the grow-out farms practiced monoculture only. 1,501 (16.0%) practiced polyculture only while 649 (6.9%) practiced both monoculture and polyculture.
- **Fish species Cultured:** Eight (8) in every ten (7,555) grow-out farms cultured Tilapia, 48.7 percent (4,576) cultured catfish while 2.5 percent (234) cultured mirror carp.
- **Main Purpose of Fish Production:** About eight (8) in every ten (7,338) grow-out farms that cultured a species was mainly for sale purpose, while only 13.9 percent (1,309) cultured fish mainly for own consumption.

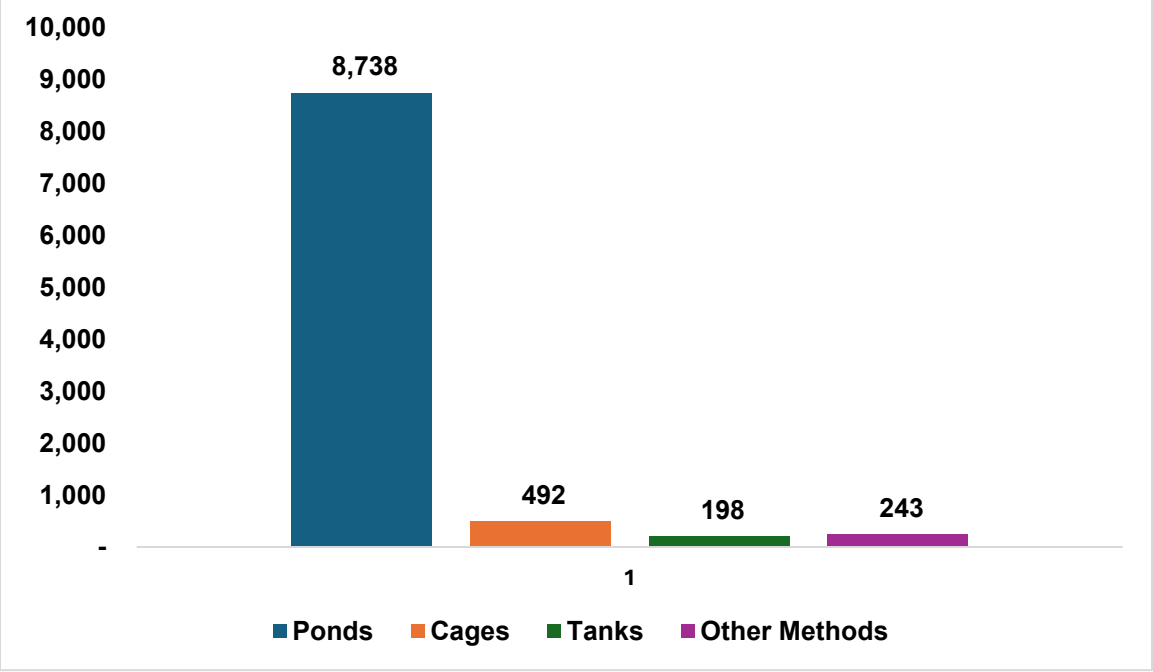
This chapter provides information on the characteristics of the production methods used by grow-out aquaculture farms. Analysis is provided for type of production method used, number of production units stocked, production culture employed, type of fish species cultured, and purpose of culturing a fish species.

Grow-out Aquaculture Farm – This is an aquaculture production facility where fish seed are raised until market size under controlled or semi-controlled conditions. In this census, grow-out farms included those that practiced grow-out only and those that practiced both grow-out and hatchery on the same farm.

3.1 Production Methods Used by Aquaculture Farms

The UAC 2025 results revealed that 8,738 (93.1%) of the 9,390 grow-out aquaculture farms used ponds, 492 (4.6%) used cages, 198 (2.1%) used tanks and 243 (2.6%) used other production methods **(Figure 3.1 and Table 3.1).**

Figure 3. 1: Aquaculture Farms by Production Method Used



***Note**: Other methods include Dams/reservoirs, Aquaponics, rice-cum and pens*

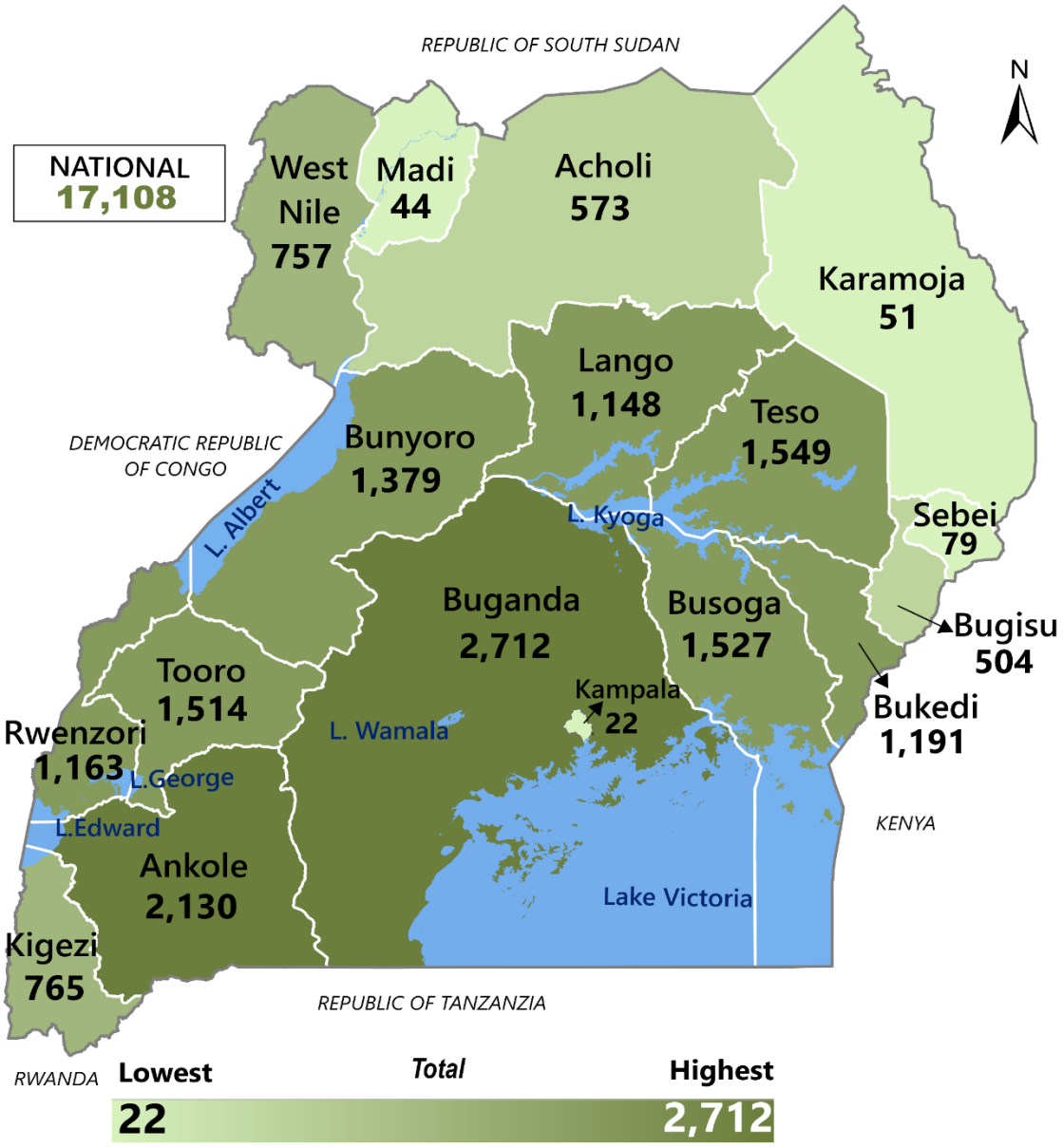
3.1.1 Ponds

The Census results revealed that 8,738 farms used ponds About 70 percent of farms that used ponds were in rural areas **(Table 3.1)**.

At sub-regional level, Buganda with 1,088 (12.5%) farms recorded the highest number of farms using ponds while Kampala with 10 farms reported the lowest number **(Table 3.2)**.

Results showed that, during the reference period out of 24,348 ponds, 17,108 representing 70.3 percent were stocked. Buganda had the highest number of stocked ponds (2,712) representing 15.9 percent while Kampala had 22 stocked ponds contributing 0.1 percent **(Figure 3.2 and Table 3.2)**.

Figure 3. 2: Number of Stocked Ponds



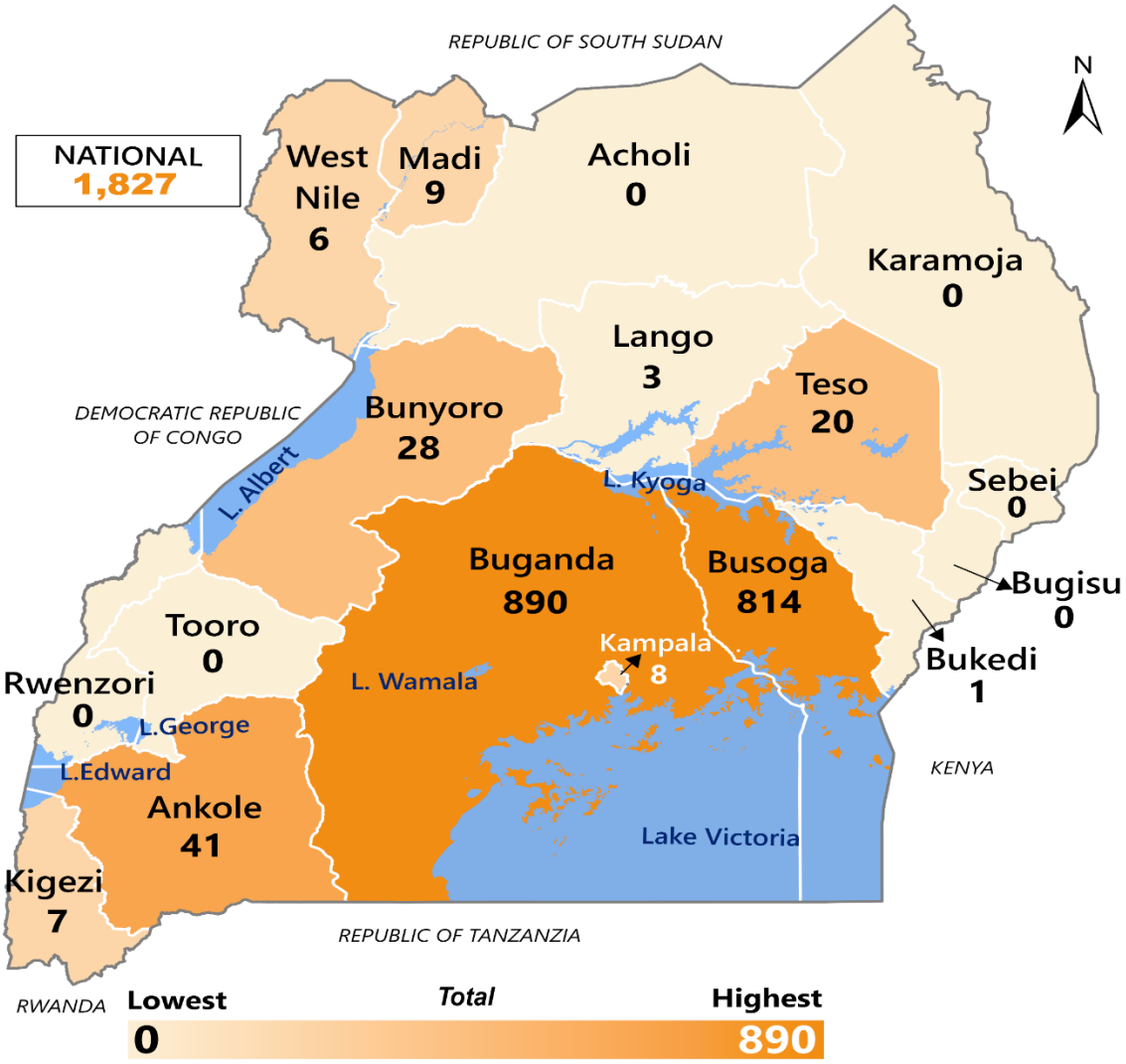
3.1.2 Cages

The Census results revealed that 429 farms used cages. About 67.8 percent of farms that used cages were in urban areas **(Table 3.1)**.

Results further showed that, out of 3,135 cages present during the reference period, 1,827 cages representing 58.3 percent were stocked.

Urban areas had the highest number of stocked cages with 1,033 representing 56.5 percent **(Figure 3.3 and Table 3.3)**.

Figure 3. 3: Number of Stocked Cages

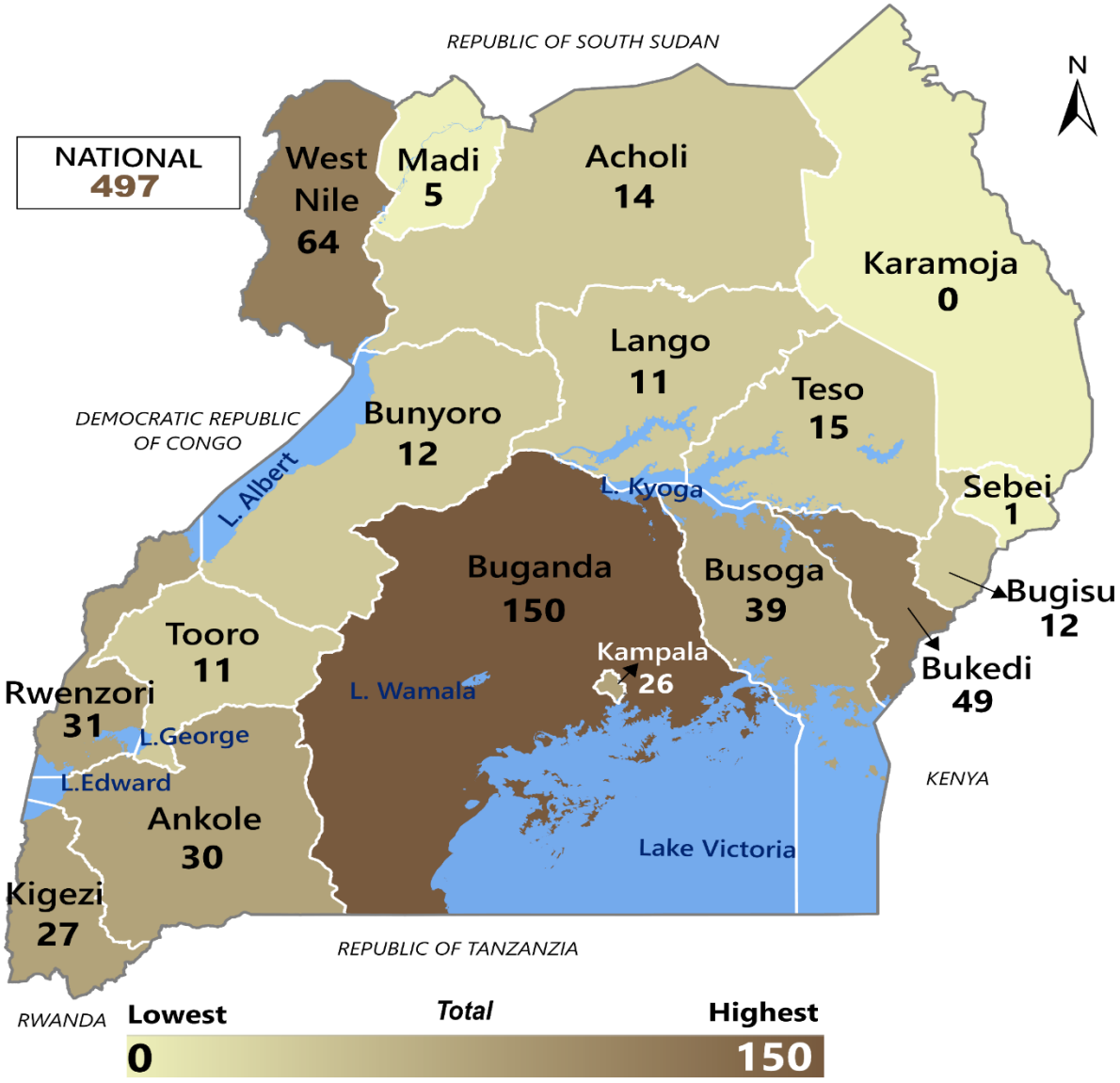


3.1.3 Tanks

The Census results revealed that 198 farms used tanks. About 51 percent of farms that used tanks were in urban areas **(Table 3.4)**.

Results further showed that, during the reference period out of 699 tanks, 497 tanks representing 71.1 percent were stocked. Urban areas had the highest number of stocked tanks with 300 representing 60.4 percent **(Figure 3.4 and Table 3.4)**.

Figure 3. 4: Number of Stocked Tanks

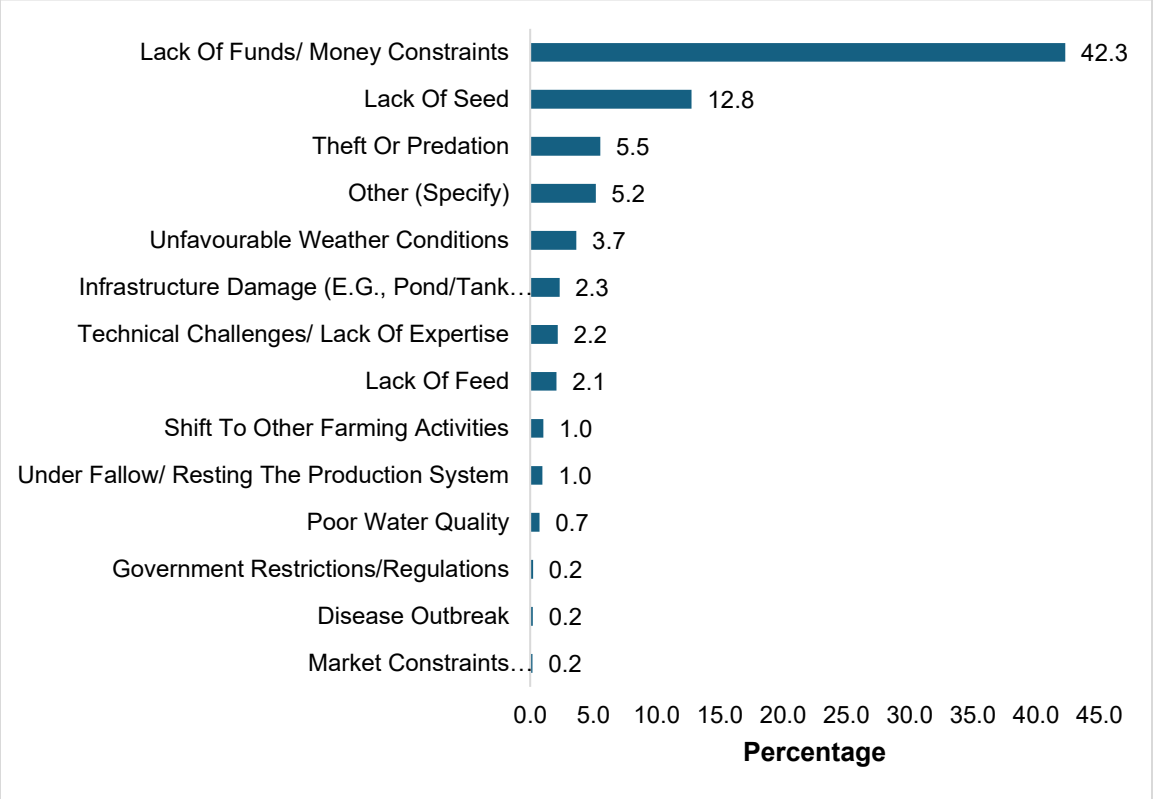


In addition, Census results revealed that 215 farms used other production methods such as Dams/reservoirs, aquaponics, rice-cum, and pens **(Table 3.5)**.

3.2 Reason for Unstocked Production Methods

Farmers were asked about the reasons why production methods were unstocked during the reference period. The UAC 2025 results revealed that 42.3 percent of the unstocked farms were due to resource or money constraints, 12.8 percent lacked seed, while 5.5 percent were inactive due to theft **(Figure 3.5)**.

Figure 3. 5: Reasons for Unstocked Production Methods

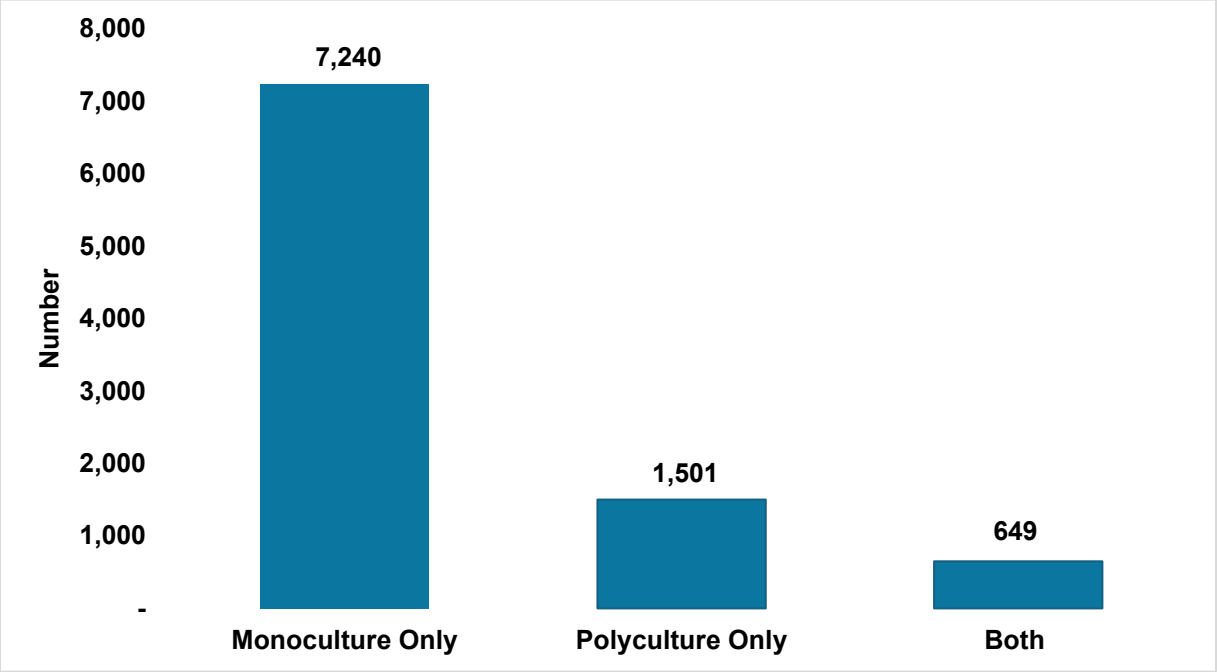


3.2 Aquaculture Farms by Production Culture

Production culture refers to the number of aquaculture species cultured within the same production unit. The production cultures may be Monoculture or Polyculture. Monoculture is where a single species is farmed in a production unit at a time while polyculture is where two or more species with complementary habitat niches and feeding characteristics are raised in a production unit at a time.

The results revealed that monoculture was the dominant culture system practiced by 7,240 farms representing 77.1 percent. Polyculture-practicing farms were 1,501 representing 16.0 percent while 649 farms representing 6.9 percent practiced both culture systems simultaneously **(Figure 3.6 and Table 3.6)**.

Figure 3. 6: Aquaculture Farms by Production Culture



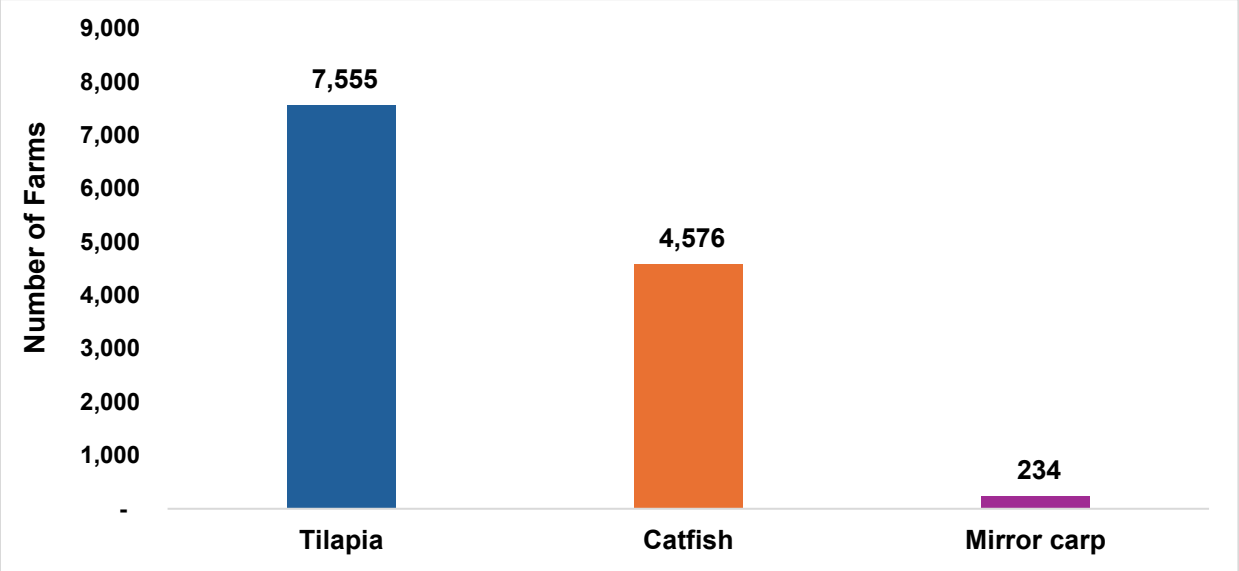
At sub-regional level, Buganda with 904 farms had the highest number of practicing monoculture only while this practice was least in Kampala with 13 farms. Polyculture only was majorly practiced in Lango with 269 farms and least practiced in Kampala with 3 farms. Farms practicing both monoculture and polyculture were mainly in Buganda with 128 farms and least in Sebei and Karamoja with one (1) farm **(Table 3.6)**.

3.3 Grow-out Farms by Fish Species Cultured and the Main Purpose of Production

The UAC 2025 results indicated that of 9,463 aquaculture farms, 9,390 practiced grow-out activities. Of those that practiced grow-out, 7,555 (80.5%) farms cultured Tilapia, 4,576 (48.7%) farms cultured Catfish, while only 234 (2.5%) farms cultured Mirror carp.

Nearly eight in every ten grow-out farms (78.1%) that cultured any species was mainly for sale while own consumption was reported at 13.9 percent **(Figure 3.7 and Table 3.7)**.

Figure 3. 7: Grow-out Farms by Fish species



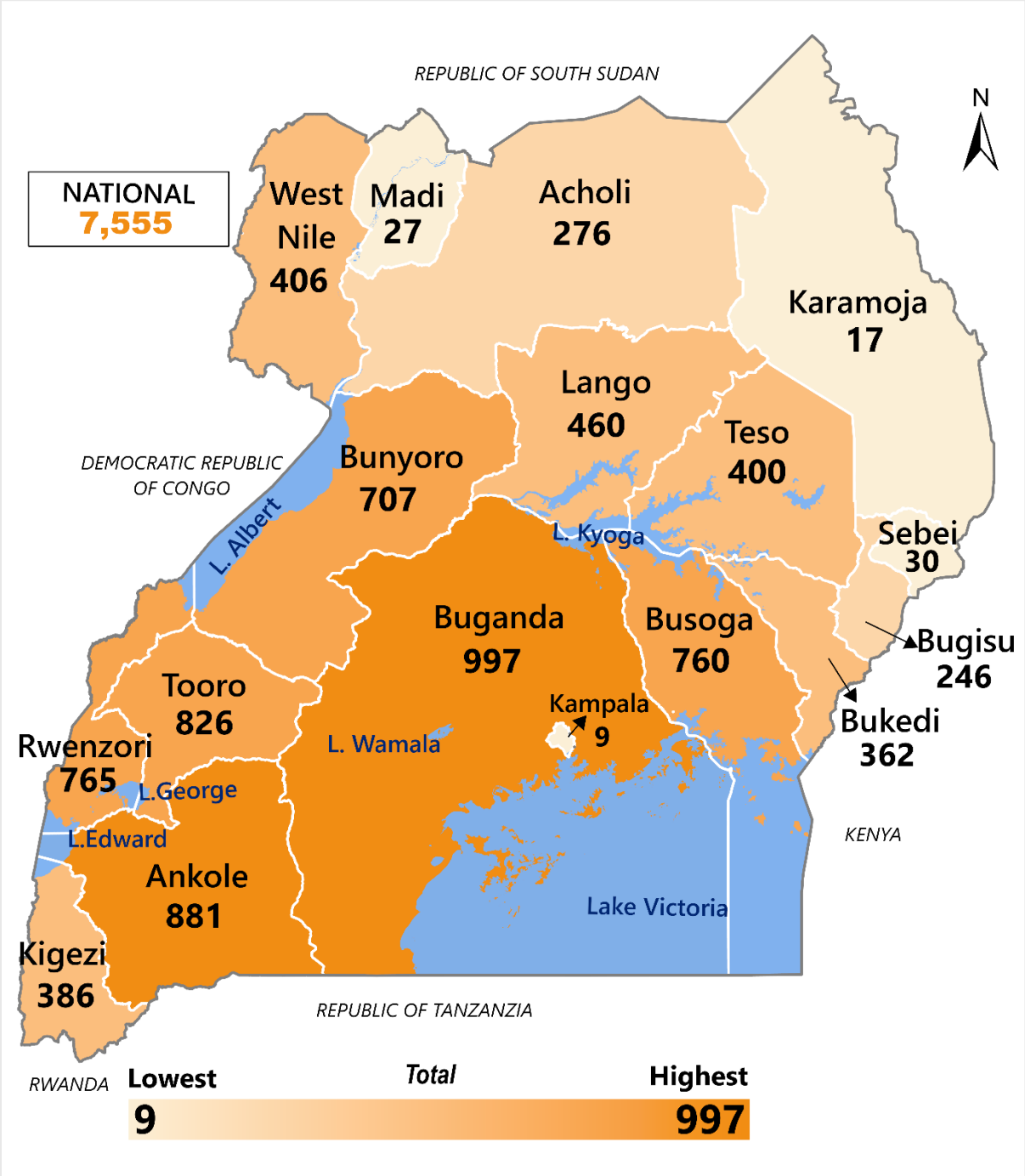
3.3.1 Tilapia Culturing Farms

Results further indicated that, out of the 7,555 farms that cultured Tilapia, 5,042 (66.7%) of the farms were found rural areas.

At the sub-regional level, Buganda recorded the highest number of aquaculture farms that cultured Tilapia, with 997 farms representing 13.3 percent while Kampala with 9 farms (0.1%) recorded the least.

Results further indicated that, nearly eight (8) in every ten farms (77.3%) cultured Tilapia mainly for sale and 13.9 percent mainly for consumption, **(Figure 3.8 and Table 3.8)**.

Figure 3. 8: Tilapia Producing Farms

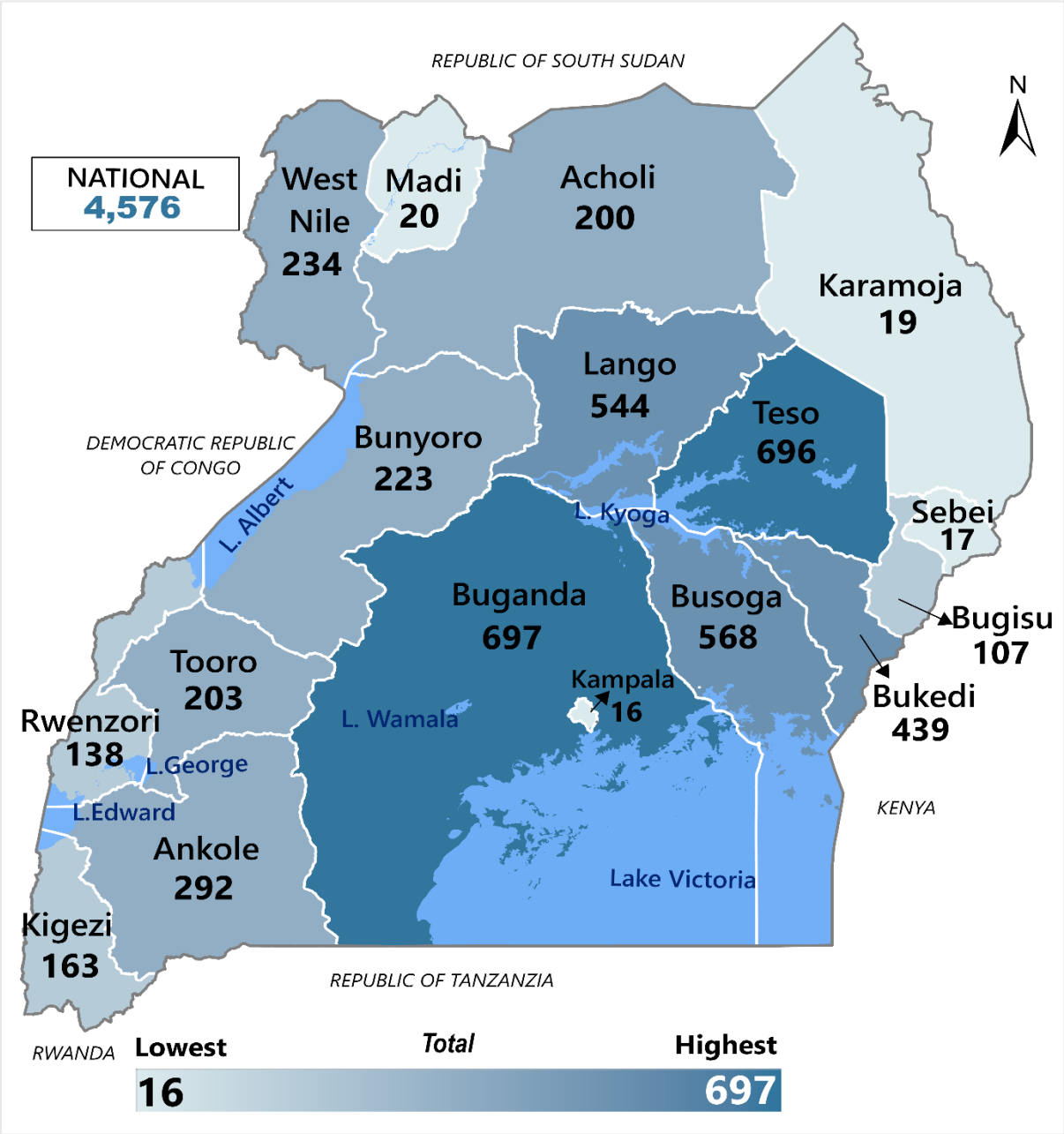


3.3.2 Catfish

Out of the 4,576 farms that cultured Catfish during the reference period, 3,193 (69.8%) were found in rural areas.

At the sub-regional level, Buganda recorded the highest number of aquaculture farms that cultured Catfish with 697 farms (15.2%) while Sebei recorded the least number of farms with only 17 farms (0.4%) that cultured Catfish **(Figure 3.9 and Table 3.9)**.

Figure 3. 9: Number of Catfish Producing Farms



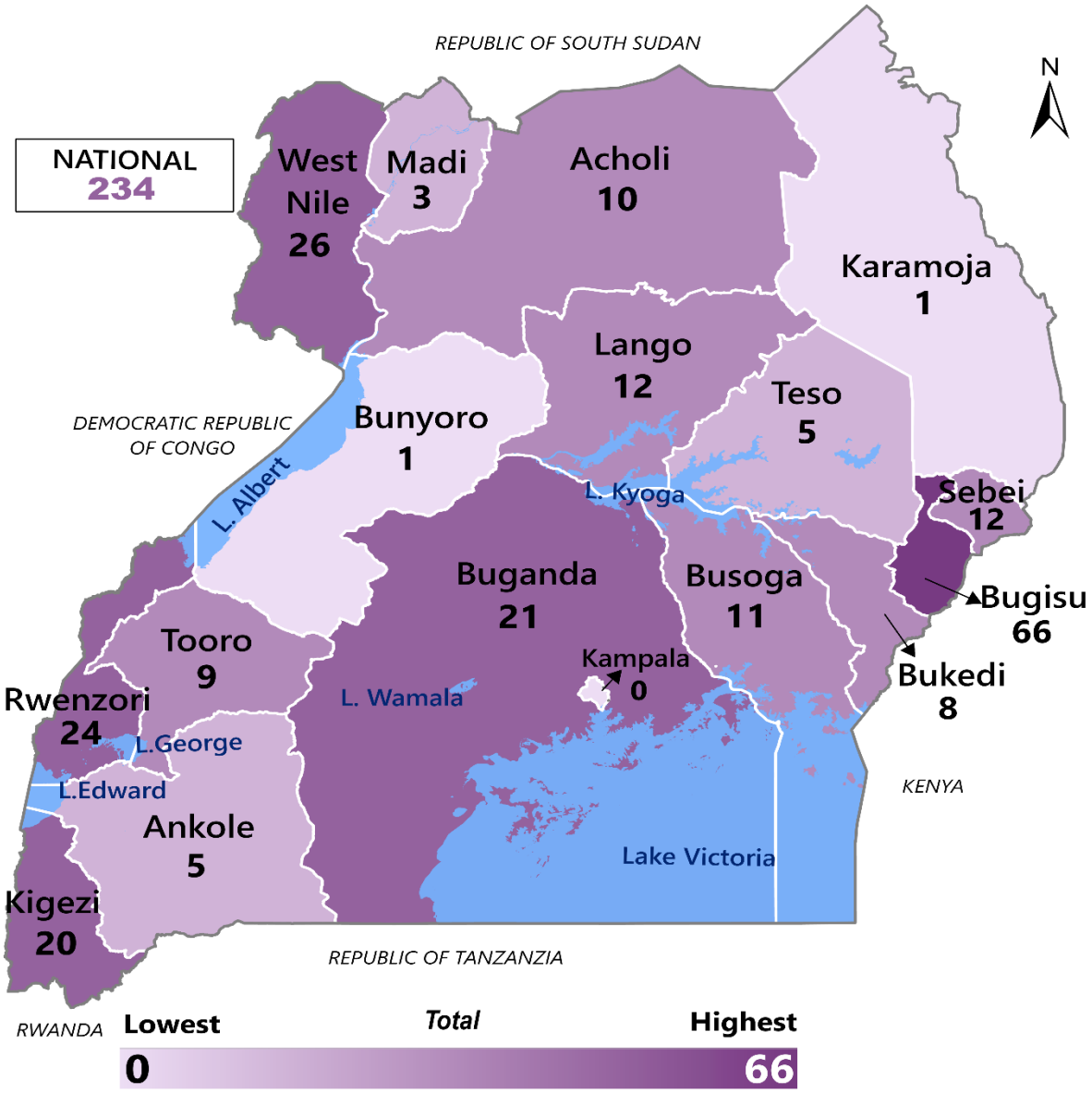
Findings revealed that, nearly 8 in every 10 farms (78.8%) cultured Catfish mainly for sale and 10.9 percent mainly for consumption, **(Figure 3.9 and Table 3.9)**.

3.3.3 Mirror-Carp

A total of 234 farms were reported to have cultured Mirror-carp and of these,162 (69.2%) were in rural areas.

At the sub-regional level, Bugisu with 66 farms (28.2%) recorded the highest number of Mirror-carp culturing farms **(Figure 3.10 and Table 3.10))**.

Figure 3. 10: Mirror Carp Producing Farms



Analysis by main purpose of production indicated that, nearly 8 in every 10 farms (78.2%) cultured Mirror carp mainly for sale and 4.7 percent mainly for consumption, **(Figure 3.11 and Table 3.10)**.

Figure 3. 11: Grow-out Farms by Fish Species Cultured and Purpose of Production

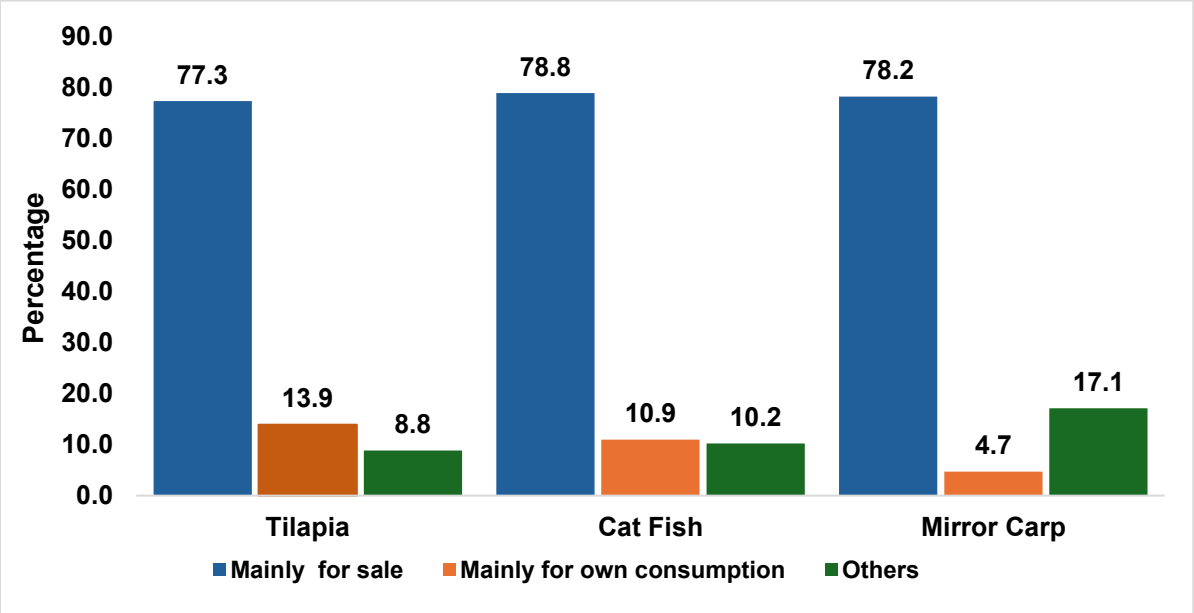


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Table 3. 1: Number of Grow-out Farms by Production method

Background Characteristics	Total Grow-out Farms	Farms with:			
		Ponds	Cages	Tanks	Other Methods
National	**9,390**	**8,738**	**429**	**198**	**243**
Location					
Rural	6,360	6,083	138	97	162
Urban	3,030	2,655	291	101	81
Sub-Region					
Kampala	19	10	1	11	2
Acholi	312	298	0	4	23
Ankole	951	912	10	8	43
Buganda	1,240	1,088	109	50	51
Bukedi	556	531	1	27	9
Bunyoro	752	746	6	6	6
Busoga	1,032	739	275	21	14
Bugisu	305	304	0	4	4
Karamoja	38	18	0	0	21
Kigezi	455	449	2	6	9
Lango	657	643	2	6	20
Madi	36	23	9	5	1
Rwenzori	818	802	0	18	5
Sebei	49	48	0	1	1
Teso	808	789	9	10	9
Tooro	901	898	0	4	5
West Nile	461	440	5	17	20

A grow-out farm can have more than one production methods, the numbers are not additive across production methods

Table 3. 2: Grow-out Farms with Stocked Ponds, number and percentage

Background Characteristics	Number of farms with ponds	Percent	Ponds		
			Total	Stocked	Unstocked
National	**8,738**	**100.0**	**24,348**	**17,108**	**7,240**
Location					
Rural	6,083	69.6	16,191	11,462	4,729
Urban	2,655	30.4	8,157	5,646	2,511
Sub-region					
Kampala	10	0.1	25	22	3
Acholi	298	3.4	798	573	225
Ankole	912	10.4	2,961	2,130	831
Buganda	1,088	12.5	4,155	2,712	1,443
Bukedi	531	6.1	1,750	1,191	559
Bunyoro	746	8.5	1,651	1,379	272
Busoga	739	8.5	2,361	1,527	834
Bugisu	304	3.5	684	504	180
Karamoja	18	0.2	61	51	10
Kigezi	449	5.1	975	765	210
Lango	643	7.4	1,748	1,148	600
Madi	23	0.3	55	44	11
Rwenzori	802	9.2	1,364	1,163	201
Sebei	48	0.5	103	79	24
Teso	789	9.0	2,752	1,549	1,203
Tooro	898	10.3	1,852	1,514	338
West Nile	440	5.0	1,053	757	296

Table 3. 3: Grow out Farms with Stocked Cages, number and percentage

Background Characteristics	Number of farms with Cages	Percent	Cages		
			Total	Stocked	Unstocked
National	**429**	**100**	**3,135**	**1,827**	1,308
Location					
Rural	138	32.2	1,348	794	554
Urban	291	67.8	1,787	1,033	754

Table 3. 4: Grow-out Farms with Stocked Tanks, number and percentage

Background Characteristics	Number of farms with Tanks	Percent	Tanks		
			Total	Stocked	Unstocked
National	**198**	**100.0**	**699**	**497**	**202**
Location					
Rural	97	49.0	280	197	83
Urban	101	51.0	419	300	119

Table 3. 5: Grow out Farms with Other Production Methods, number and percentage

Background Characteristics	Farms with Other Production Methods	Percent	Other Production Methods		
			Total	Stocked	Unstocked
National	**215**	**100**	**316**	**272**	**44**
Location					
Rural	152	70.7	223	191	32
Urban	63	29.3	93	81	12

Note: Other production Methods include dams/reservoirs, Aquaponics, rice-cum and pens

Table 3. 6: Number of Grow-out Farms by Production Culture

Background Characteristics	Total Number of Farms	Number of Farms Practicing;		
		Monoculture Only	Polyculture Only	Both Monoculture and Polyculture
National	**9,390**	**7,240**	**1,501**	**649**
Location				
Rural	6,360	4,859	1,074	427
Urban	3,030	2,381	427	222
Sub-Region				
Kampala	19	13	3	3
Acholi	312	171	109	32
Ankole	951	817	79	55
Buganda	1,240	904	208	128
Bukedi	556	370	114	72
Bunyoro	752	610	85	57
Busoga	1,032	820	147	65
Bugisu	305	236	54	15
Karamoja	38	31	6	1
Kigezi	455	388	46	21
Lango	657	343	269	45
Madi	36	27	4	5
Rwenzori	818	744	51	23
Sebei	49	40	8	1
Teso	808	585	162	61
Tooro	901	829	42	30
West Nile	461	312	114	35

Table 3. 7: Number of Grow-out Farms by Species Cultured

Background Characteristics	Grow-out Farms	Farms Culturing:			
		Tilapia	Catfish	Mirror Carp	Other Species
National	**9,390**	**7,555**	**4,576**	**234**	**164**
Location					
Rural	6,360	5,042	3,193	162	91
Urban	3,030	2,513	1,383	72	73
Sub-Region					
Kampala	19	9	16	-	-
Acholi	312	276	200	10	5
Ankole	951	881	292	5	20
Buganda	1,240	997	697	21	25
Bukedi	556	362	439	8	10
Bunyoro	752	707	223	1	12
Busoga	1,032	760	568	11	9
Bugisu	305	246	107	66	7
Karamoja	38	17	19	1	11
Kigezi	455	386	163	20	7
Lango	657	460	544	12	15
Madi	36	27	20	3	0
Rwenzori	818	765	138	24	5
Sebei	49	30	17	12	0
Teso	808	400	696	5	8
Tooro	901	826	203	9	18
West Nile	461	406	234	26	8

Other Species include; Silver Carp, Grass Carp, etc.

Table 3. 8: Main Purpose of Production for Farms that Cultured Tilapia, number and percentage

Background Characteristics	Tilapia Farms		Main Purpose of Production					
	Total Number	Percent	Mainly for Sale		Only for own Consumption		Other Purposes	
			Number	Percent	Number	Percent	Number	Percent
National	**7,555**	**100**	**5,838**	**77.3**	**1,050**	**13.9**	**667**	**8.8**
Location								
Rural	5,042	66.7	3,888	77.1	724	14.4	430	8.5
Urban	2,513	33.3	1,950	77.6	326	13	237	9.4
Sub-Region								
Kampala	9	0.0	5	0.6	2	0.2	2	0.2
Acholi	276	3.7	249	90.2	18	6.5	9	3.3
Ankole	881	11.7	679	77.1	154	17.5	48	5.4
Buganda	997	13.2	804	80.6	106	10.6	22	0.0
Bukedi	362	4.8	300	82.9	31	8.6	31	8.6
Bunyoro	707	9.4	503	71.1	86	12.2	118	16.7
Busoga	760	10.1	678	89.2	61	8	21	2.8
Bugisu	246	3.3	199	80.9	15	6.1	32	13.0
Karamoja	17	0.2	10	58.8	4	23.5	3	17.6
Kigezi	386	5.1	307	79.5	61	15.8	18	4.7
Lango	460	6.1	388	84.3	51	11.1	21	4.6
Madi	27	0.4	20	74.1	3	11.1	4	14.8
Rwenzori	765	10.1	526	68.8	151	19.7	88	11.5
Sebei	30	0.4	29	96.7	0	0	8	26.7
Teso	400	5.3	270	67.5	86	21.5	44	11.0
Tooro	826	10.9	510	61.7	190	23	126	15.3
West Nile	406	5.4	361	88.9	31	7.6	14	3.4

Table 3. 9: Main Purpose of Production for Farms that Cultured Catfish, number and percentage

Background Characteristics	Total Number	Percent	Mainly For Sale		Only For Own Consumption		Other Purposes	
			Number	Percent	Number	Percent	Number	Percent
National	**4,576**	**100**	**3,608**	**78.8**	**501**	**10.9**	**467**	**10.2**
Location								
Rural	3,193	69.8	2,513	78.7	368	11.5	312	9.8
Urban	1,383	30.2	1,095	79.2	133	9.6	155	11.2
Sub-Region								
Kampala	16	0.0	12	75.0	3	18.8	1	0.1
Acholi	200	4.4	177	88.5	14	7	9	4.5
Ankole	292	6.4	243	83.2	28	9.6	21	7.2
Buganda	697	15.2	543	77.9	66	0.1	16	0.0
Bukedi	439	9.6	370	84.3	23	5.2	46	10.5
Bunyoro	223	4.9	161	72.2	19	8.5	43	19.3
Busoga	568	12.4	473	83.3	65	11.4	30	5.3
Bugisu	107	2.3	92	86	4	3.7	11	10.3
Karamoja	19	0.4	14	73.7	3	15.8	2	10.5
Kigezi	163	3.6	124	76.1	19	11.7	20	12.3
Lango	544	11.9	464	85.3	53	9.7	27	5.0
Madi	20	0.4	15	75	2	10	3	15.0
Rwenzori	138	3	94	68.1	11	8	33	23.9
Sebei	17	0.4	17	100	0	0	0	0.0
Teso	696	15.2	472	67.8	163	23.4	61	8.8
Tooro	203	4.4	125	61.6	21	10.3	57	28.1
West Nile	234	5.1	212	90.6	7	3	15	6.4

Table 3. 10: Main Purpose of Production for Farms that Cultured Mirror Carp, number and percentage

Background Characteristics	Total Number	Percent	Mainly For Sale		Only For Own Consumption		Other Purposes	
			Number	Percent	Number	Percent	Number	Percent
National	**234**	**100**	**183**	**78.2**	**11**	**4.7**	**40**	**17.1**
Location								
Rural	162	69.2	124	76.5	9	5.6	29	17.9
Urban	72	30.8	59	81.9	2	2.8	11	15.3

CHAPTER FOUR: AQUACULTURE PRODUCTION AND DISPOSITION

Key Findings

- **Surface area of aquaculture production units:** The total area under aquaculture was estimated at 5.48 million square metres with land-based production methods accounting for 98.4 percent of all the aquaculture surface area.
- **Distribution of Ponds by size:** 57.1 percent of ponds had a surface area of less than 200 sqm, while 37.3 percent measured between 200 and 800 sqm
- **Rectangular Cages:** A total of 1,693 stocked cages recorded nationally, 1,034 cages were rectangular or square. While 764 cages were circular.
- **Grow-out Farms that Harvested:** Out of the 9,390 grow-out farms, 5,273 (56.2%) farms harvested fish in the reference period. Of those that harvested, 3,621 (68.7%) were in rural areas.
- **Aquaculture Production:** For the 12 months from July 2024 to June 2025, the estimated total aquaculture production was 65,444 Metric Tonnes (MT).
- **Production by Fish Species:** Of the total production, Tilapia contributed 82.4 percent (53,924.1MT), Catfish contributed 17.3 percent (11,347.4MT), Mirror Carp contributed 0.2 percent, and other species contributed 0.1 percent.
- **Disposition of Fish Production:** For all fish species cultured, more than 75 percent of the production was sold.

This chapter presents findings of area under aquaculture for farms that were harvested between July 2024 and June 2025, quantity of fish produced by species, and disposition.

4.1 Area Under Aquaculture Production

The UAC 2025 results revealed that the total area under aquaculture production in Uganda was estimated at 5.51 million square metres (sqm), with land-based systems accounting for 98.4 percent (5.42 million sqm) and water-based systems accounting for 1.6 percent (89,642 sqm) of the total area. The average holding size for an aquaculture farm was 587 sqm **(Table 4.1)**.

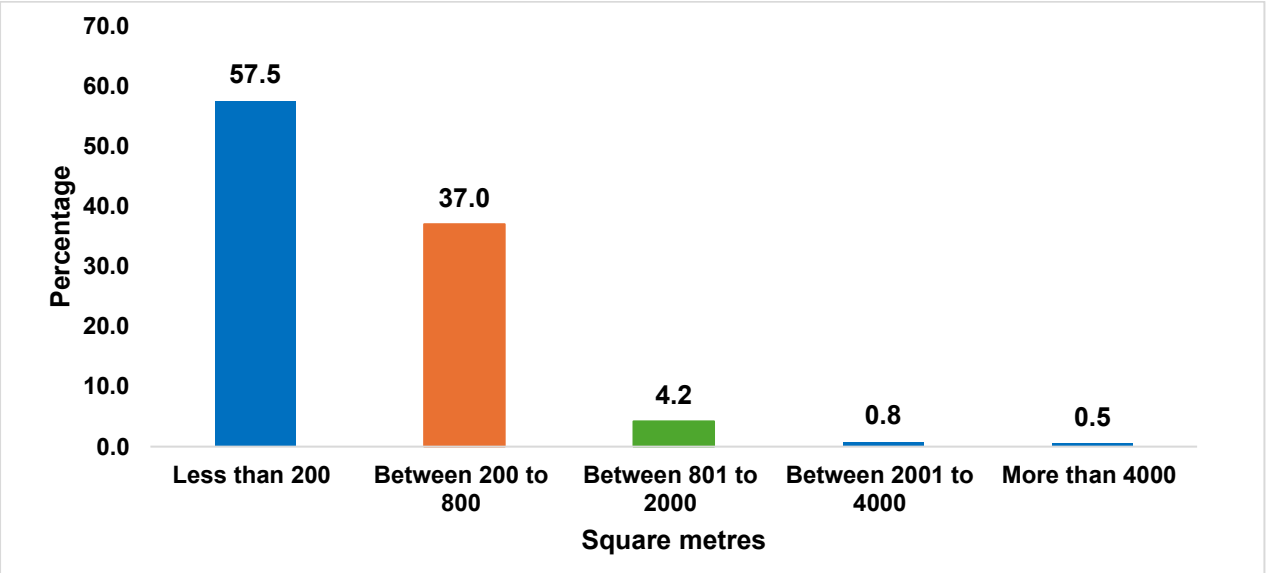
> Area used for aquaculture includes land and inland water for aquaculture as well as supporting facilities.

By farm location, rural-based farms accounted for 61.4 percent of the total aquaculture area, compared to 38.6 percent for urban-based farms. Urban farms recorded a larger average holding size (701 sqm) than rural farms (533 sqm) **(Table 4.1)**.

4.2 Distribution of Ponds by Size in Square Metres

During the UAC 2025, stocked ponds were measured. Nationally, 57.5 percent of the ponds had a surface area of less than 200 sqm, while 37.0 percent measured between 200 and 800 sqm. 4.2 percent of the ponds were measuring between 801 and 2,000 sqm, 0.8 percent between 2,001 and 4,000 sqm, and 0.5 percent exceeding 4,000 sqm **(Figure 4.1 and Table 4.2)**.

Figure 4. 1: Percentage of Ponds by Size (Square metres)



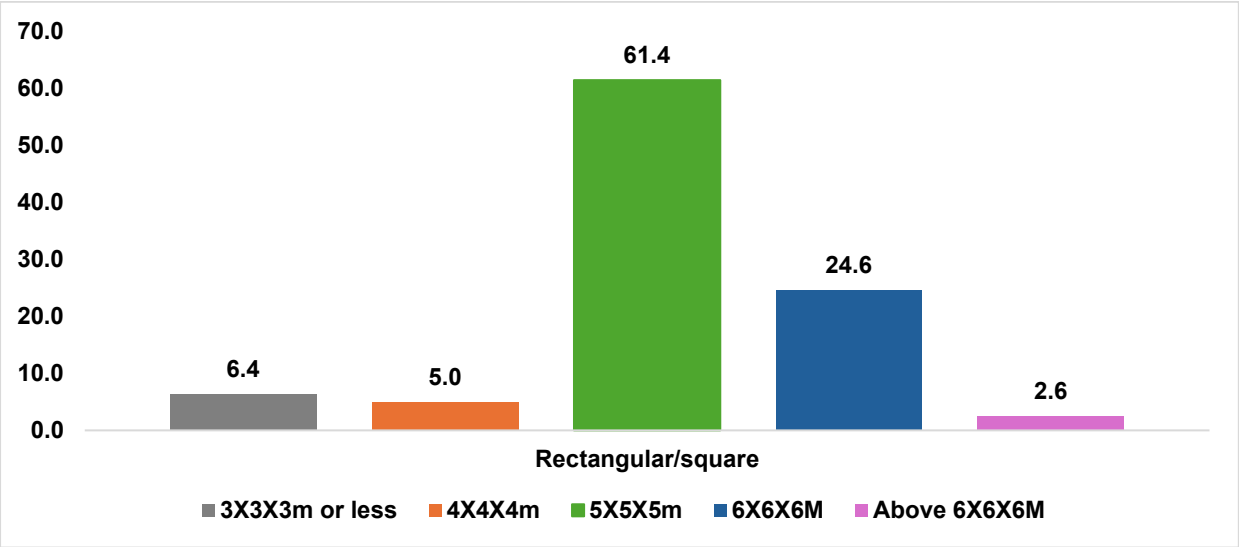
4.3 Distribution of Cages by Shape and Size

4.3.1 Rectangular Cages

The UAC 2025 results indicated that, out of a total of 1,813 stocked cages recorded nationally, 1,151 rectangular cages representing 63.5 percent were rectangular or square. Analysis of these rectangular cages shows a strong concentration in medium-sized units.

At national level, 61.4 percent of rectangular cages measured 5×5×5 metres, 24.6 percent measured 6×6×6 metres. Smaller cages measuring 3×3×3 metres or less accounted for 6.4 percent, while 5.0 percent measured 4×4×4 metres. Only 2.6 percent of rectangular cages exceeded 6×6×6 metres in size **(Figure 4.2)**.

Figure 4. 2: Percentage of Rectangular Cages by Size (Square metres)

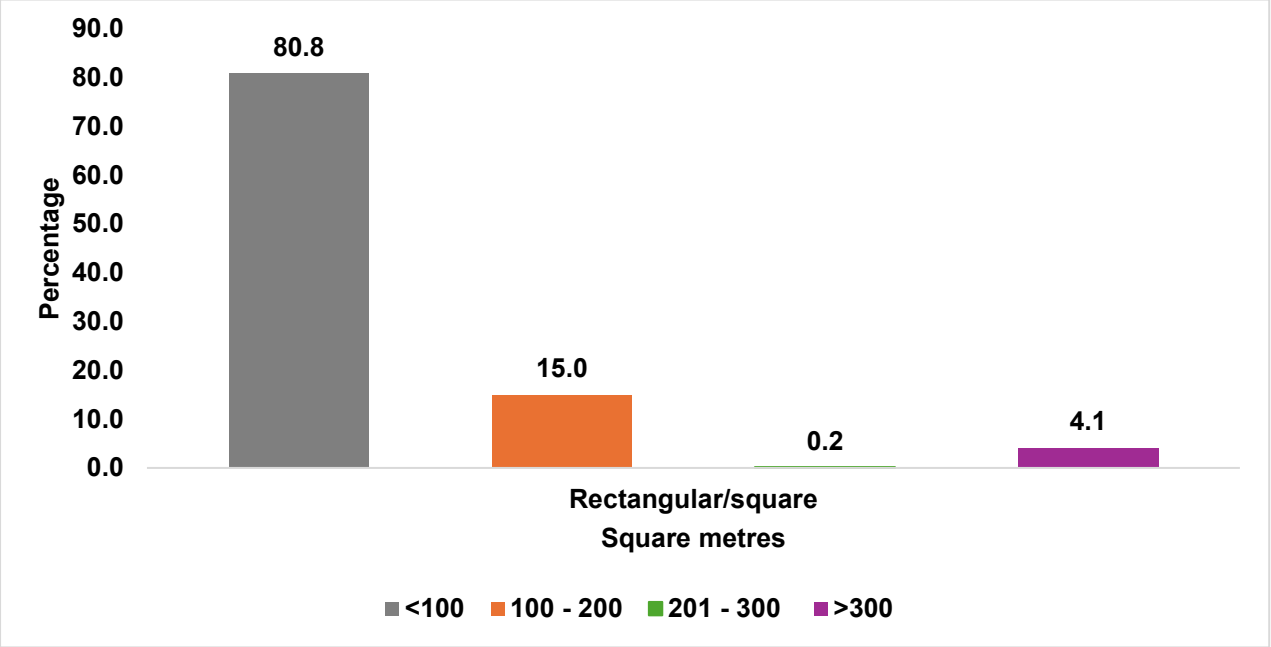


Most Urban-based farms (76.9%) reported cages measuring 5×5×5 metres, while most rectangular cages in the rural farms (42.5%) measured 6×6×6 metres **(Table 4.3)**.

4.3.2 Circular Cages

The UAC 2025 results indicated that, out of a total of 1,813 stocked cages recorded nationally, 662 were circular cages contributing 36.5 percent of the total stocked cages in the country. Among the circular cages, 80.8 percent were below 100 square metres, 15.0 percent were between 100 and 200 sqm whereas 4.1 percent of the cages were above 300 sqm. A higher number of circular cages was recorded in rural areas 58.2 percent **(Figure 4.3 and Table 4.4)**.

Figure 4. 3: Percentage of Circular Cages by Size (Square metres)

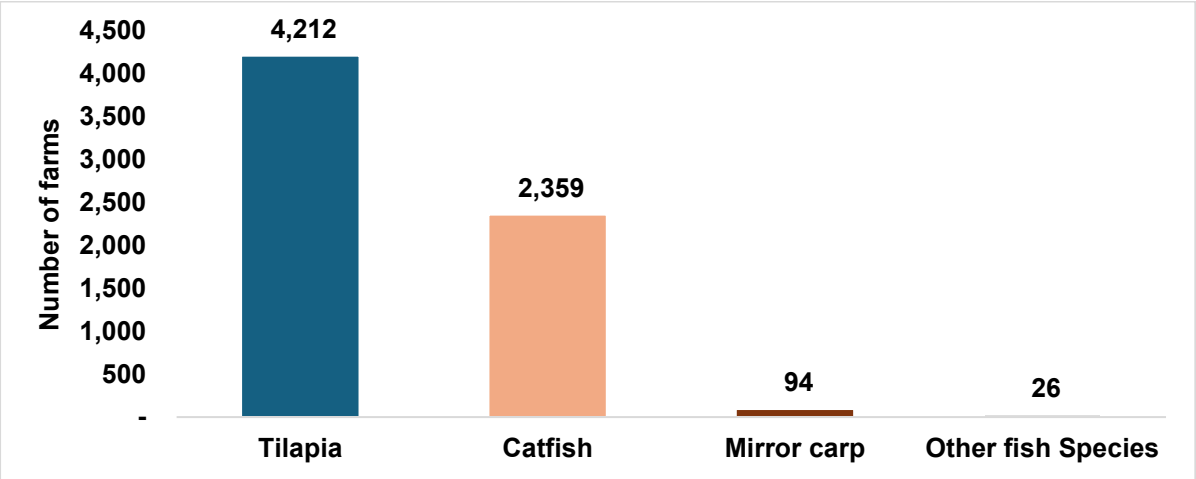


4.4 Grow-out Farms that harvested

The UAC 2025 findings indicated that of the 5,273 farms that harvested, 3,621 farms (68.7%) were in rural areas and 1,652 (31.3%) were in urban areas.

Results further indicated that of the farms that harvested, 4,212 (79.9%) harvested Tilapia, 2,359 (44.7%) harvested Catfish, only 94 (1.8%) Mirror carp culturing farms harvested **(Figure 4.4, Table 4.5a, Table 4.5b and Table 4.5c)**.

Figure 4. 4: Grow-out Farms that Harvested by Fish Species



4.5 Aquaculture Production

The UAC 2025 findings indicated that the total grow-out farm production, between July 2024 and June 2025, was 65,444 Metric Tonnes. Of this, 71.9 percent (47,050.7MT) was produced by farms in the rural areas.

At sub-regional level, Buganda, with 55,703.7 Metric Tonnes, had the highest aquaculture production. This accounted for 85.2 percent of the total grow-out farm production in the country. Sebei, with 32.6 Metric Tonnes representing less than 0.1 percent, recorded the lowest aquaculture production. **(Figure 4.5, Figure 4.6, and Table 4.6)**.

At district level, Buikwe, with 41,588.1 Metric Tonnes, had the highest aquaculture production representing 63.5 percent of the total production whereas Nakapiripirit with 1.0 Metric Tonnes had the least **(Annex Table 4.1)**.

Figure 4. 5: Grow-out Farms Production by Sub-Region (Percent)

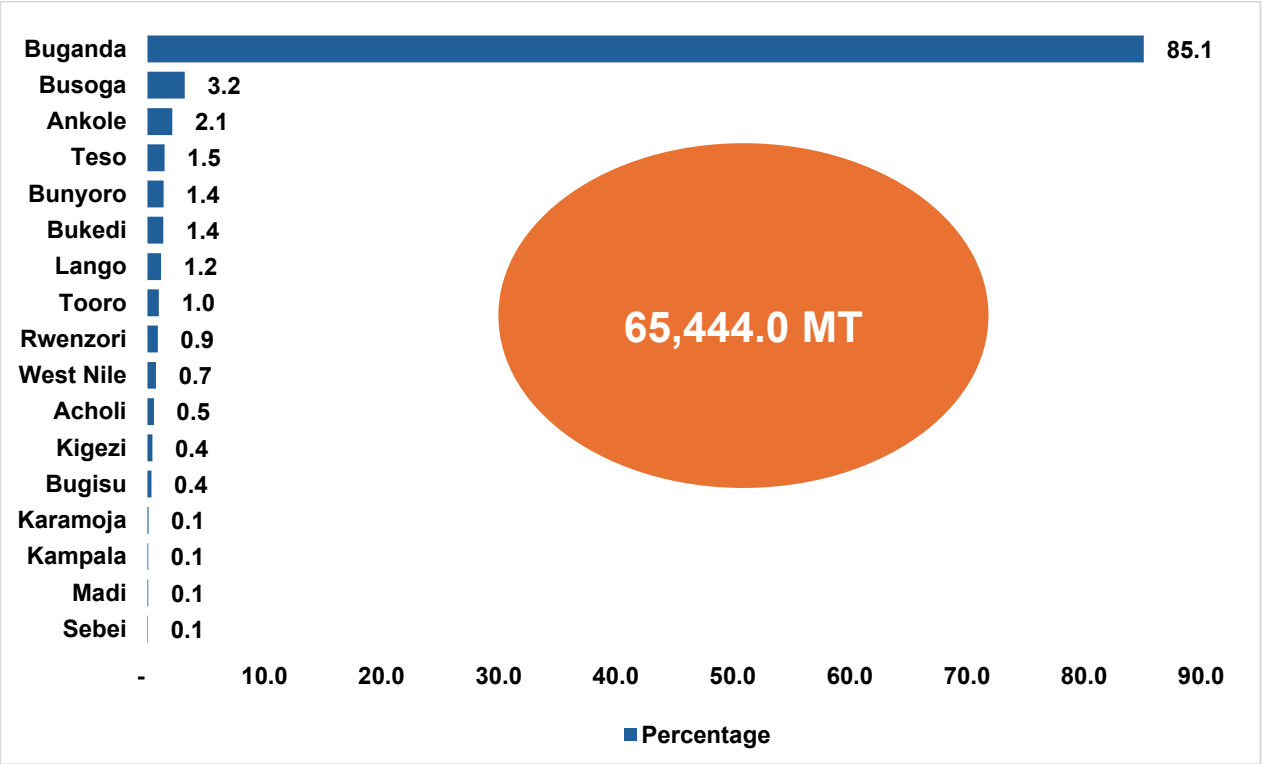
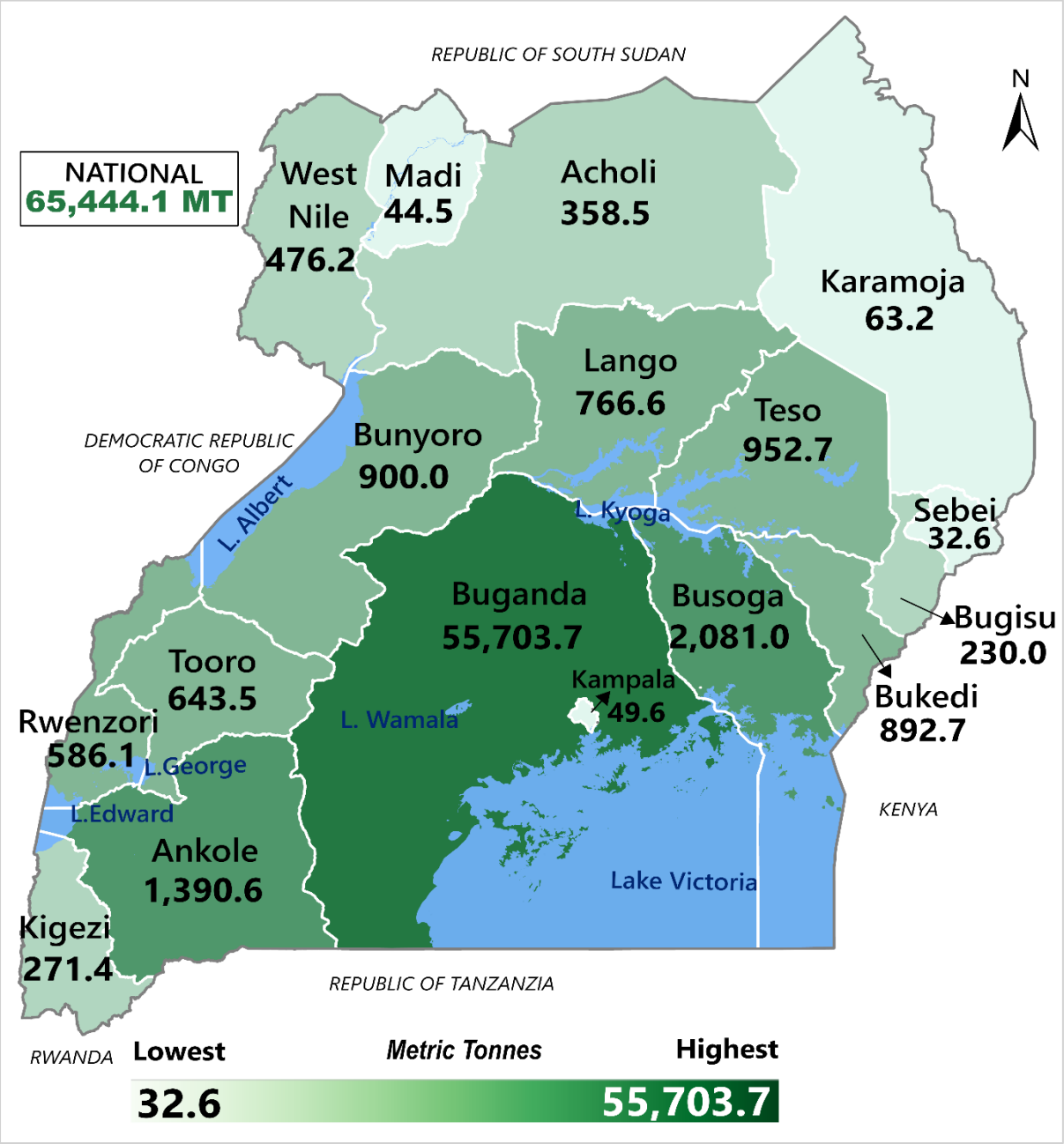


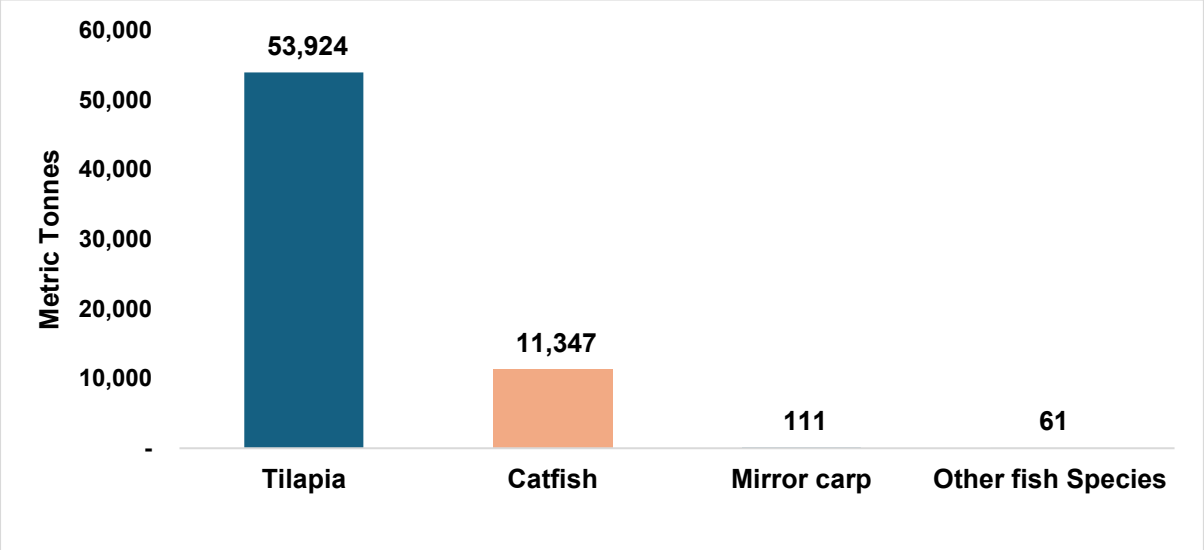
Figure 4. 6: Grow-out Farms Production, Metric Tonnes



4.6 Grow-out Farm Production by Fish Species

The most harvested fish species by aquaculture farmers between July 2024 and June 2025 were tilapia, catfish and mirror carp. The UAC 2025 revealed that out of the total aquaculture production of 65,444.0 Metric Tonnes, 53,924 Metric Tonnes was Tilapia, 11,347 Metric Tonnes were Catfish, 111 Metric Tonnes were Mirror Carp, and 61 Metric were from other species **(Figure 4.7 and Table 4.7)**.

Figure 4. 7: Grow-out Farm Production by Species



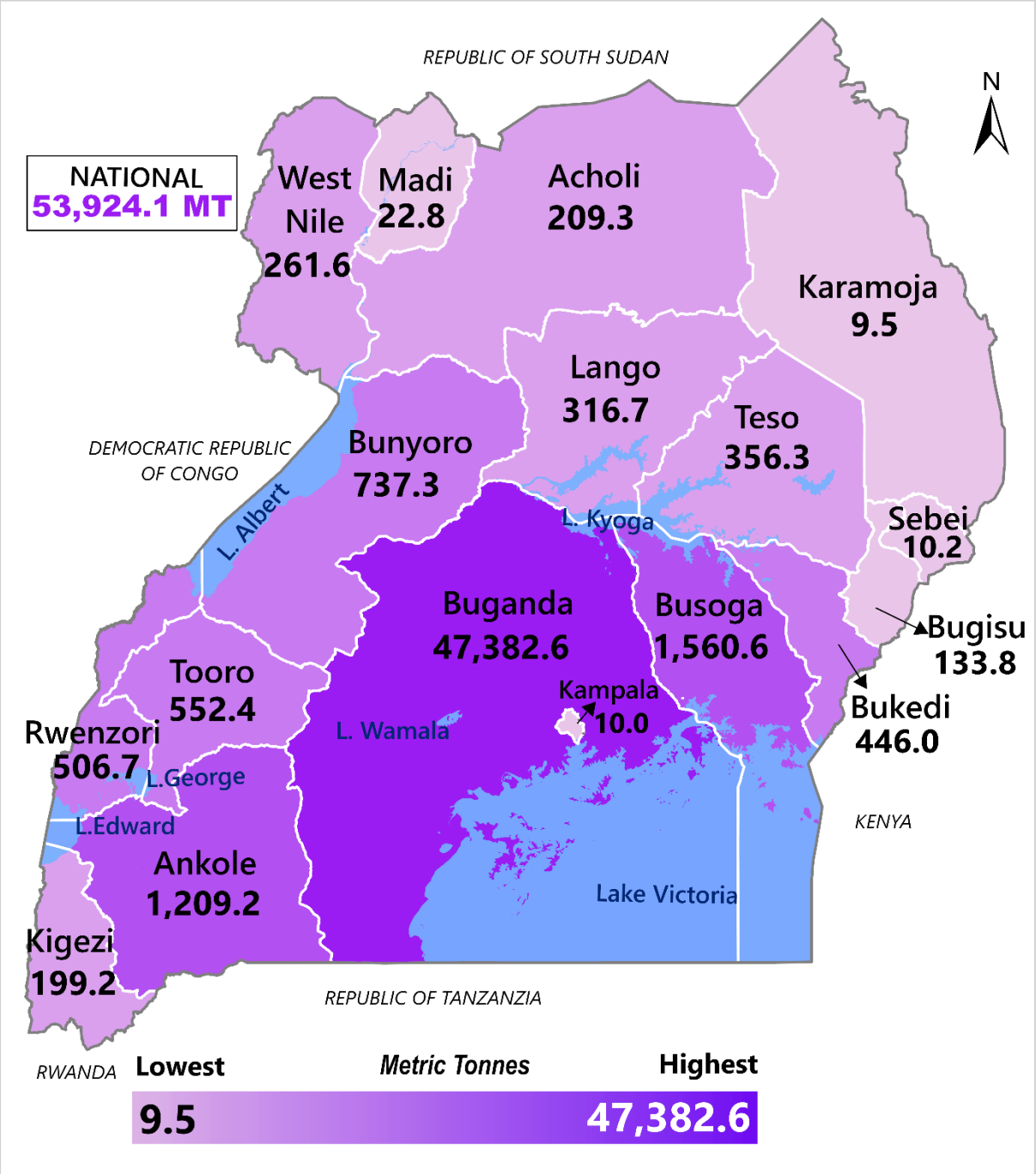
4.6.1 Tilapia Production

Tilapia contributed the highest with 53,924 Metric Tonnes representing 82.4 percent. Of the total grow-out farm production. 72.1 percent (38,882.1 MT) was produced by Urban farms while 28.1 percent (15,041.9 MT) by rural farms.

At the sub-regional level, Buganda had the highest Tilapia production of 47,382.6 Metric Tonnes (87.9%) while Karamoja had the least with 9.5 Metric Tonnes representing only 0.02 percent **(Figure 4.8 and Table 4.7)**.

At district level, Buikwe, with 40,869.2 Metric Tonnes had the highest production of Tilapia representing 87.8 percent of the total Tilapia production in the country **(Annex Table 4.1)**.

Figure 4. 8: Tilapia Production (MT)



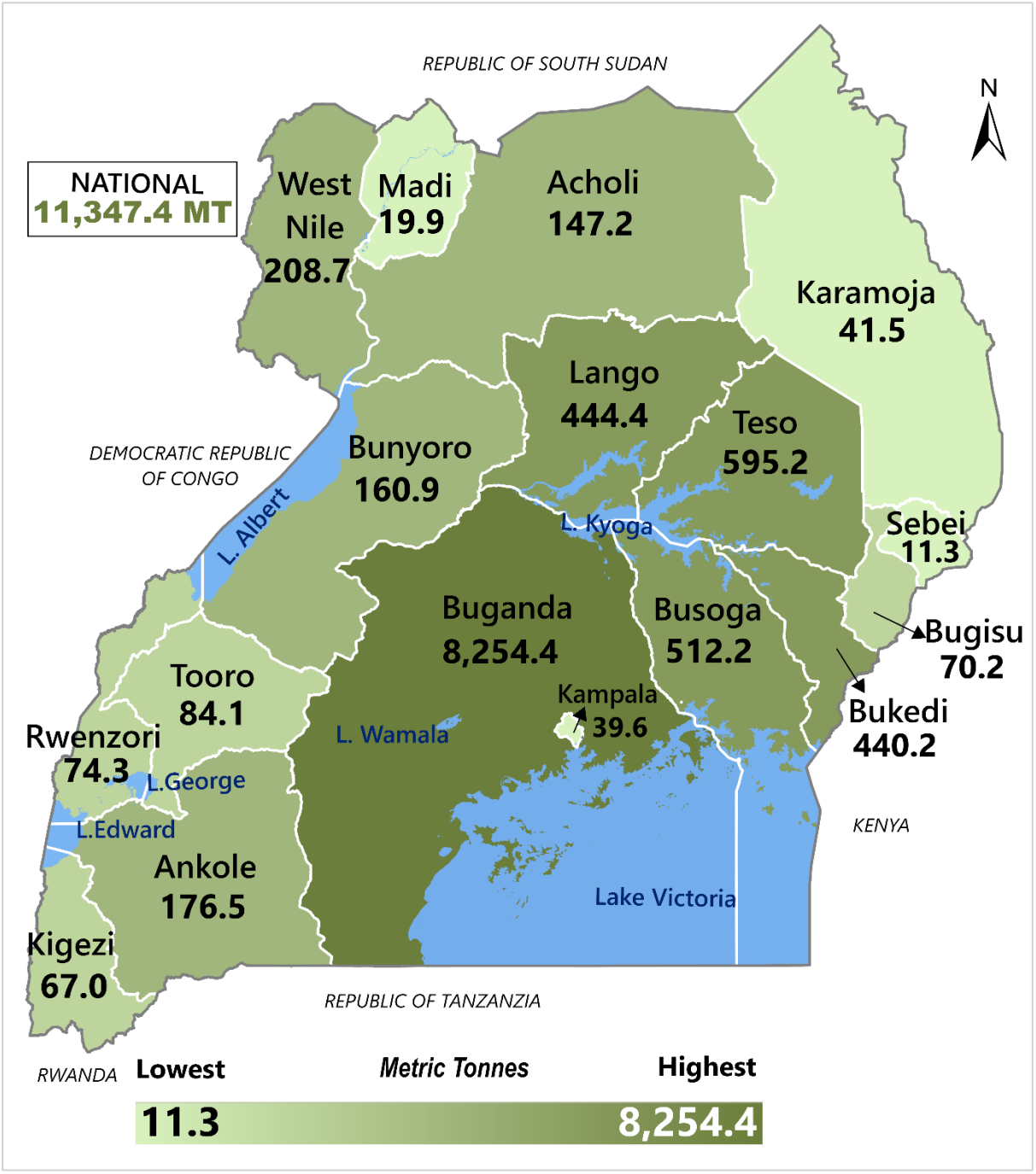
4.6.2 Catfish Production

Catfish production was 11,347 Metric Tonnes contributing 17.3 percent to the total grow-out farm production. Of this production, 8,104.6 Metric Tonnes was produced by Urban farms representing 71.4 percent.

At the sub-regional level, Buganda had the highest Catfish production of 8,254.4 Metric Tonnes, contributing 72.7 percent to the total catfish production while Sebei had the least catfish production with only 11.3 Metric Tonnes **(Figure 4.9 and Table 4.7)**.

At district level, Wakiso with 5,940.5 Metric Tonnes had the highest catfish production, representing 52.4 percent of the total catfish production in the country **(Annex Table 4.1)**.

Figure 4. 9: Catfish Production (MT)

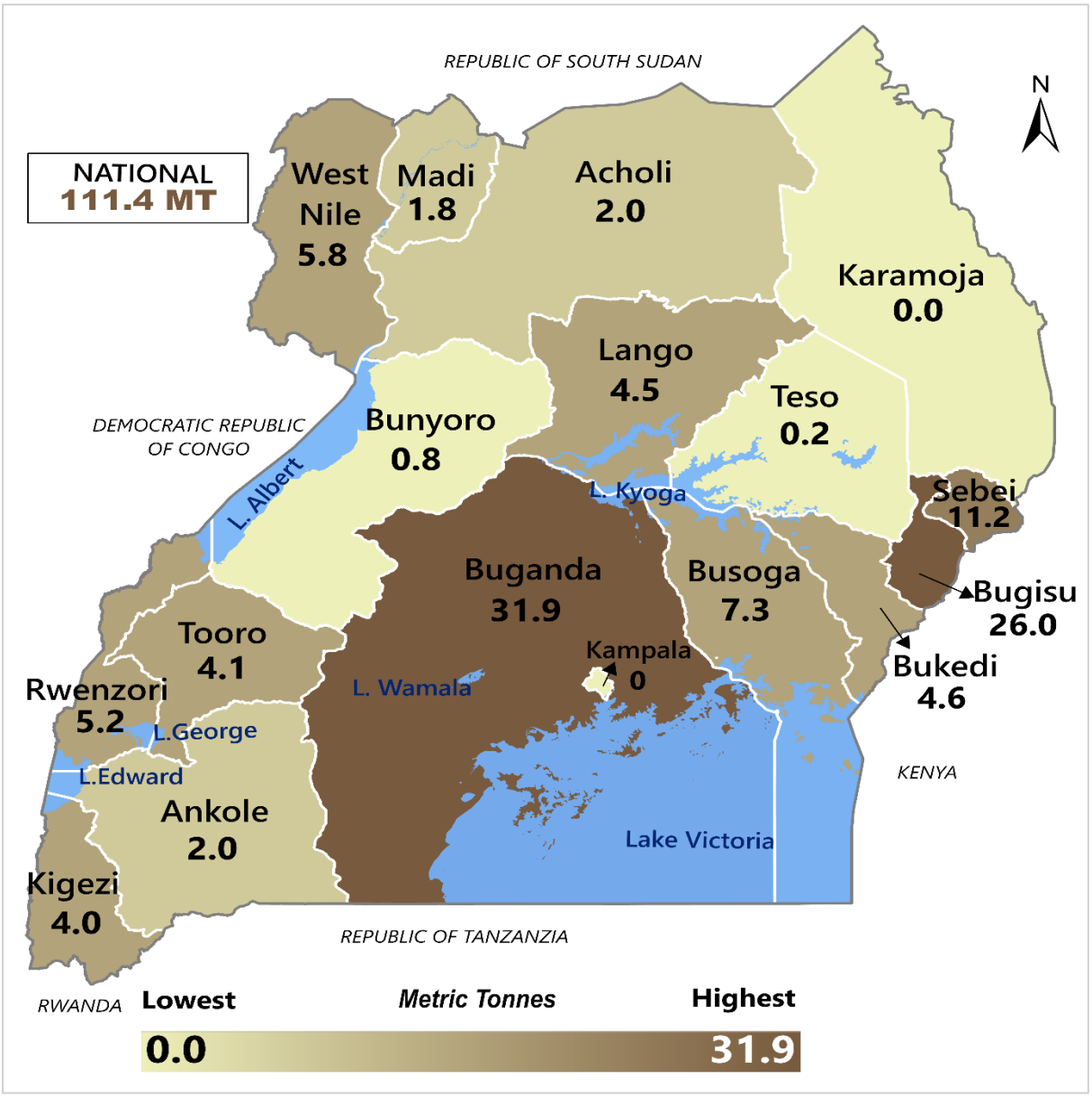


4.6.3 Mirror Carp Production

Mirror carp production was 111.4 Metric Tonnes contributing 0.2 percent to the total grow-out farm production. Of this production, 88.2 Metric Tonnes was produced by rural farms representing 79.1 percent.

At sub-regional level, Buganda had the highest Mirror carp production of 31.9 Metric Tonnes representing 28.6 percent of the total Mirror Carp production while Karamoja reported no production **(Figure 4.10 and Table 4.7)**.

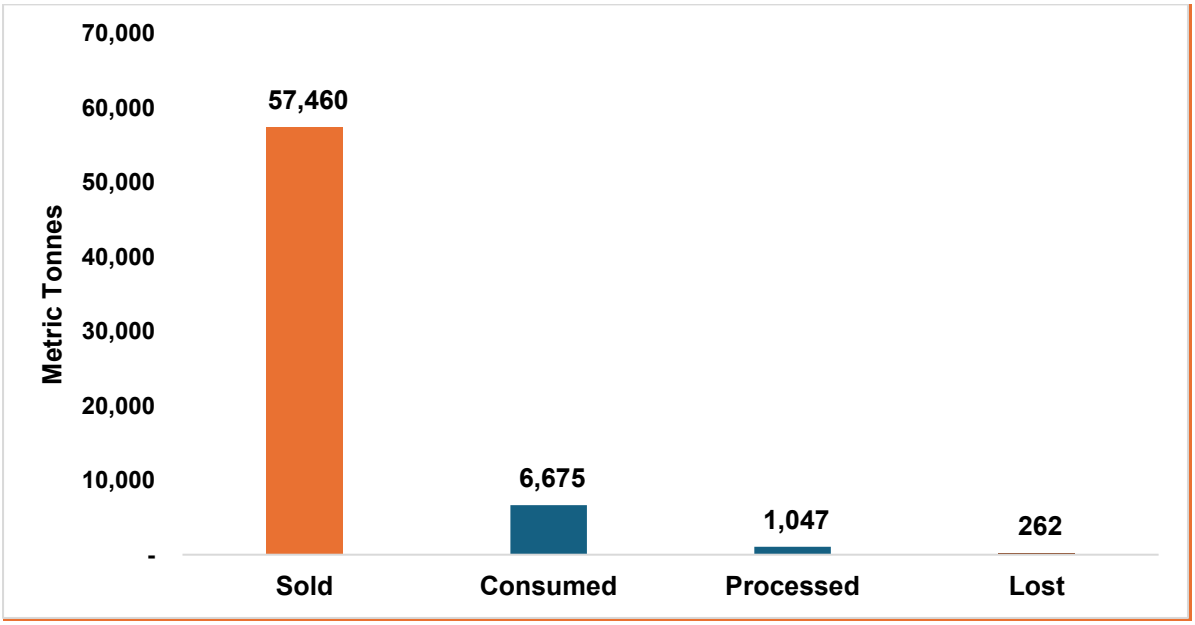
Figure 4. 10: Mirror Carp Production (MT)



4.7 Aquaculture Disposition

The UAC 2025 results indicate that grow-out farm production was mainly sold. At the national level, 87.8 percent of total production was sold, 10.2 percent consumed by the farmer, 1.6 percent processed, and 0.4 percent lost **(Figure 4.11 and Table 4.8)**.

Figure 4. 11: Aquaculture Production by Form of Disposition

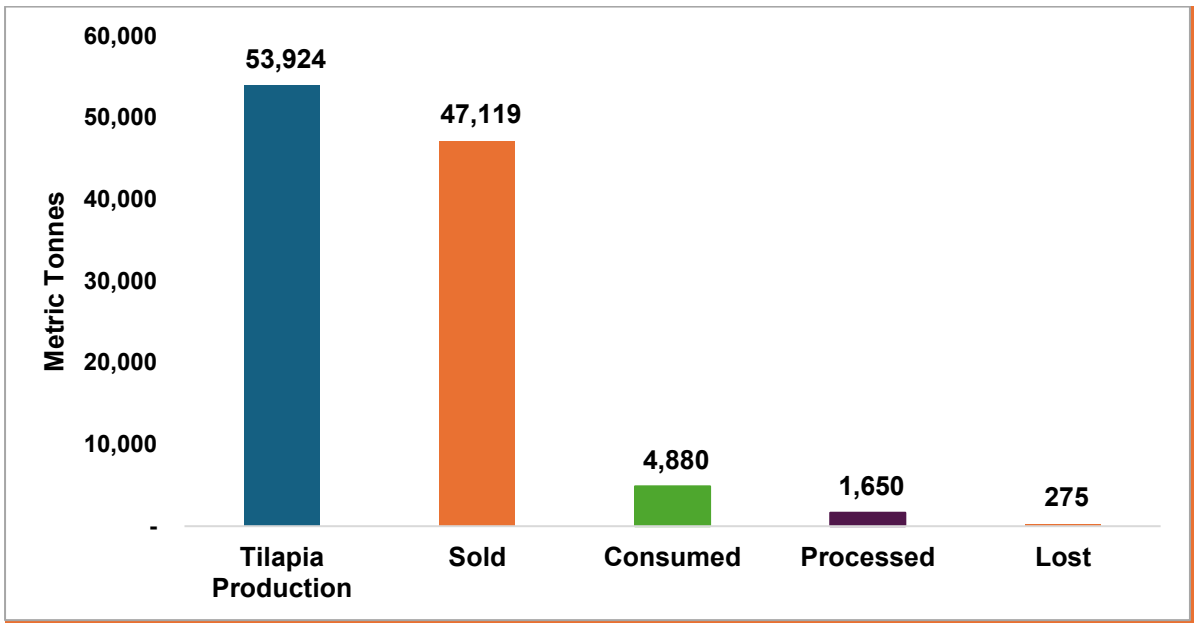


Farms in the urban sold 89.1 percent of their production while farms in rural areas reported to have sold 80.7 percent of their production **(Table 4.8)**.

4.7.1 Disposition of Tilapia Production

The UAC 2025 results revealed that the highest quantity of the Tilapia production (47,119 MT) was sold representing 87.4 percent. 4,880 Metric Tonnes (9.0%) was consumed by the producers, 1,650 Metric Tonnes (3.1%) was processed, while 275 Metric Tonnes was lost **(Figure 4.12)**.

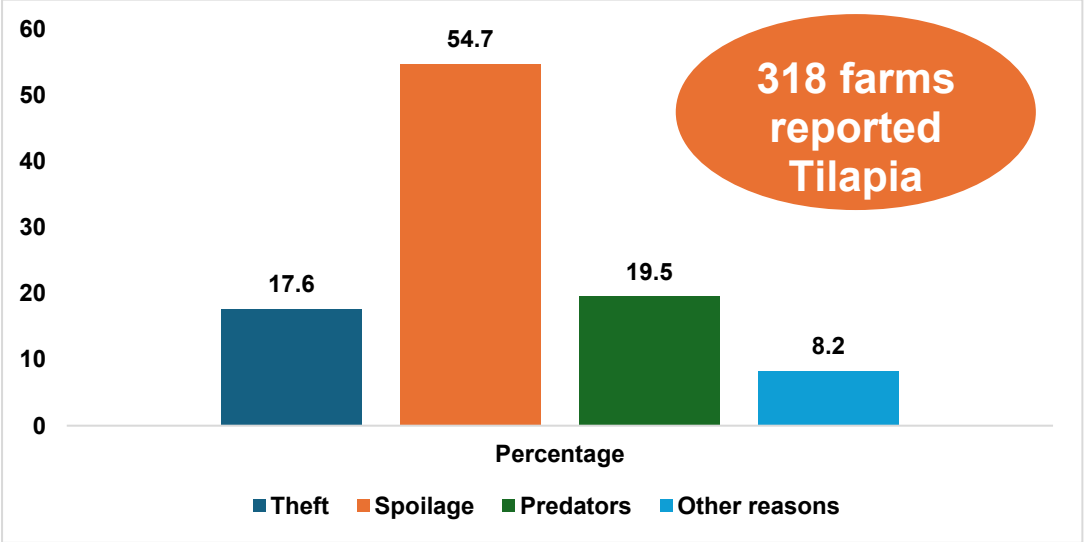
Figure 4. 12: Disposition of Tilapia Production in Metric Tonnes



4.7.1.1 Reasons for Post-Harvest Loss among Tilapia Farms

The results indicated that of the 318 farms that reported post-harvest loss for tilapia, 54.7 percent reported loss due to spoilage, 19.5 percent due to predators, 17.6 percent due to theft and 8.2 percent was due to other reasons **(Figure 4.13 and Table 4.9)**.

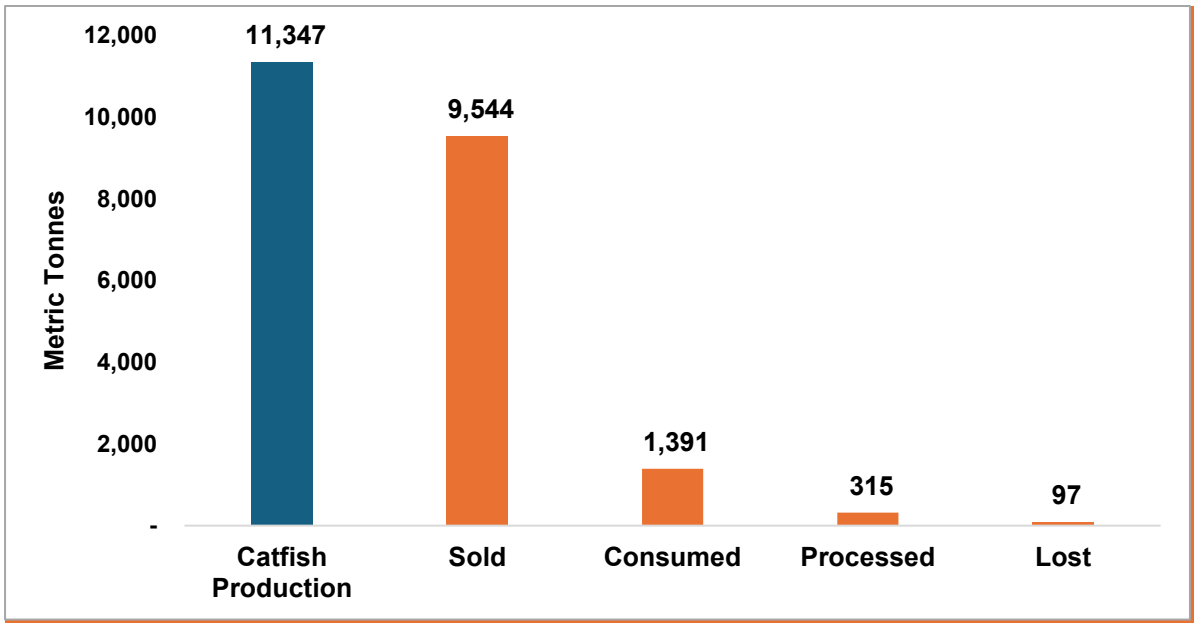
Figure 4. 13: Reasons for Post-Harvest Loss among Tilapia Farms



4.7.2 Disposition of Catfish Production

The UAC 2025 results revealed that the highest quantity of the Catfish production (9,544 MT) were sold representing 84.1 percent. 1,391 Metric Tonnes (12.3%) was consumed by the producers, 315 Metric Tonnes (2.8%) was processed, while 97 Metric Tonnes were lost **(Figure 4.14)**.

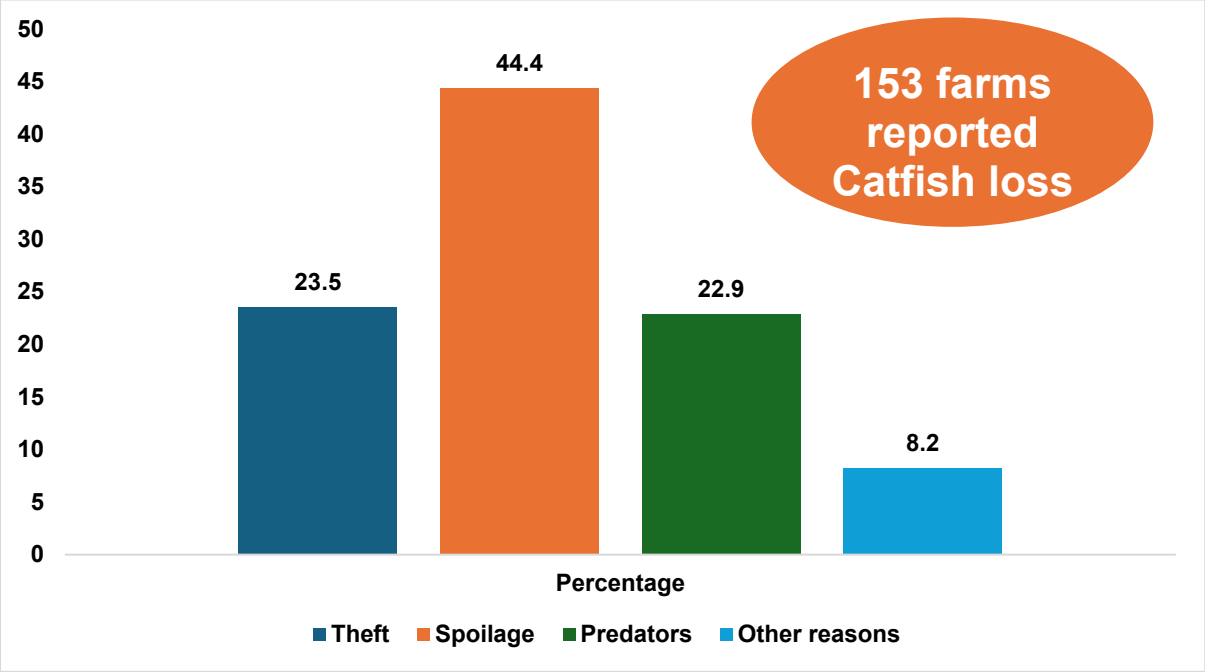
Figure 4. 14: Disposition of Catfish Production



4.7.2.1 Reasons for Post-harvest Loss among Catfish Farms

The results indicated that of the 153 farms that reported post-harvest loss for Catfish, 44.4 percent reported loss due to spoilage, 22.9 percent due to predators, 23.5 percent due to theft and 8.2 percent due to other reasons (**Figure 4.15 and Table 4.10**).

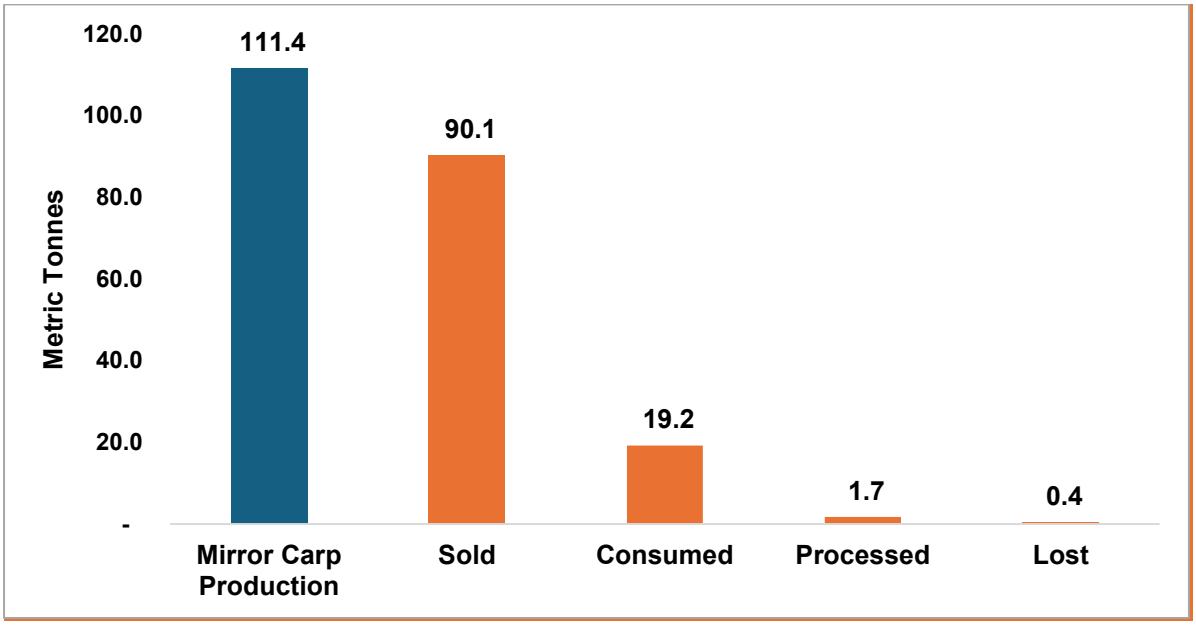
Figure 4. 15: Reasons for Post-harvest Loss among Catfish Farms



4.7.3 Disposition of Mirror Carp Production

The UAC 2025 results revealed that the highest quantity of the Mirror Carp production (90.1 MT) were sold representing 80.9 percent. 19.2 Metric Tonnes (17.2%) was consumed by the producers, 1.7 Metric Tonnes (1.5%) was processed, while 0.4 Metric Tonnes were lost **(Figure 4.16)**.

Figure 4. 16: Disposition of Mirror Carp Production

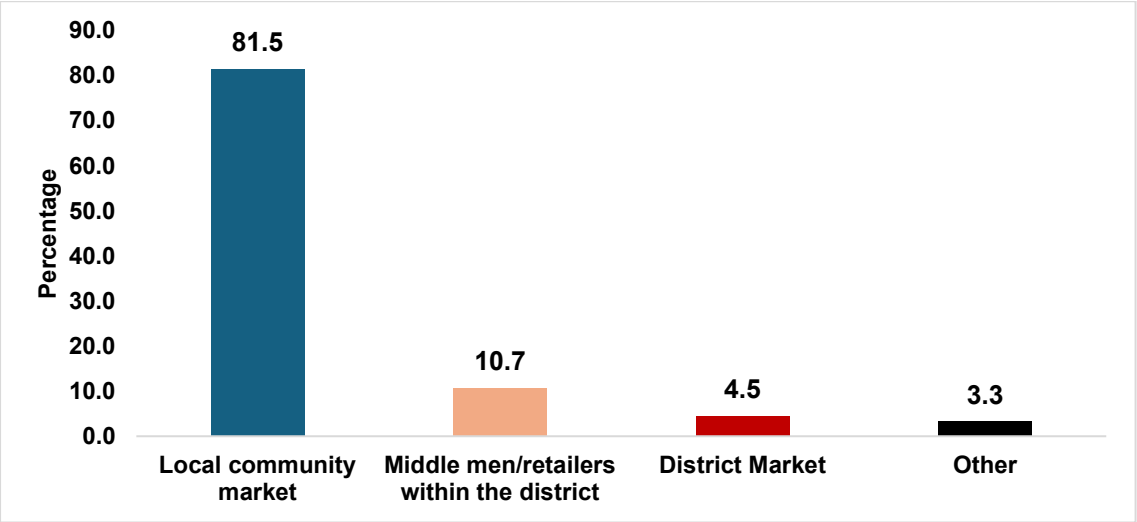


4.7.4 Aquaculture Fish Buyers

The UAC 2025 results revealed that for all the aquaculture fish harvested by the farmers, over 70 percent was sold to local community markets.

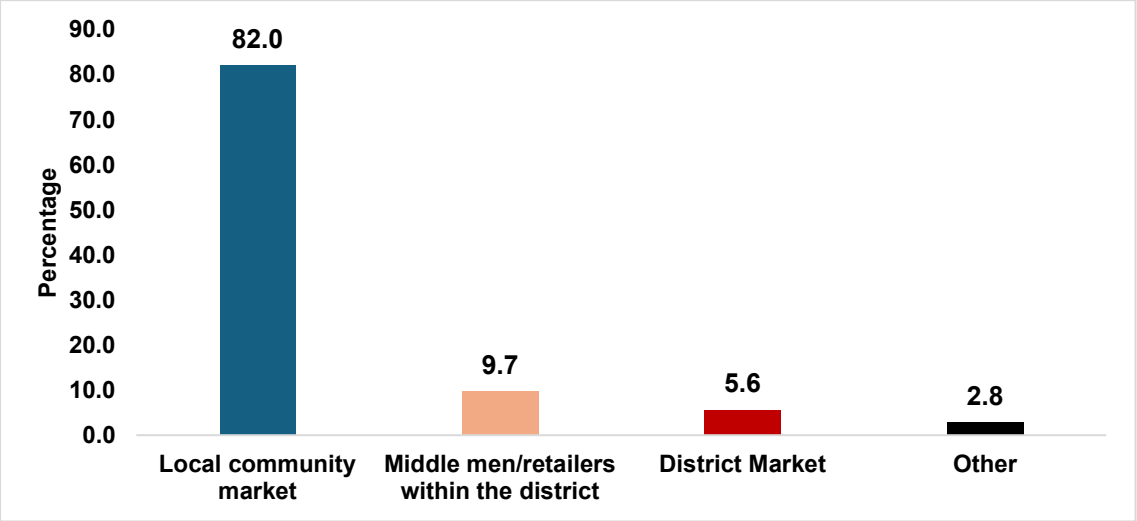
Aquaculture farmers that sold tilapia, 81.5 percent was sold to local community markets, 10.7 percent was sold to the middlemen, 4.5 percent was sold in District markets, while 3.3 percent was sold to other buyers **(Figure 4.17)**.

Figure 4. 17: Tilapia Farms by Buyers



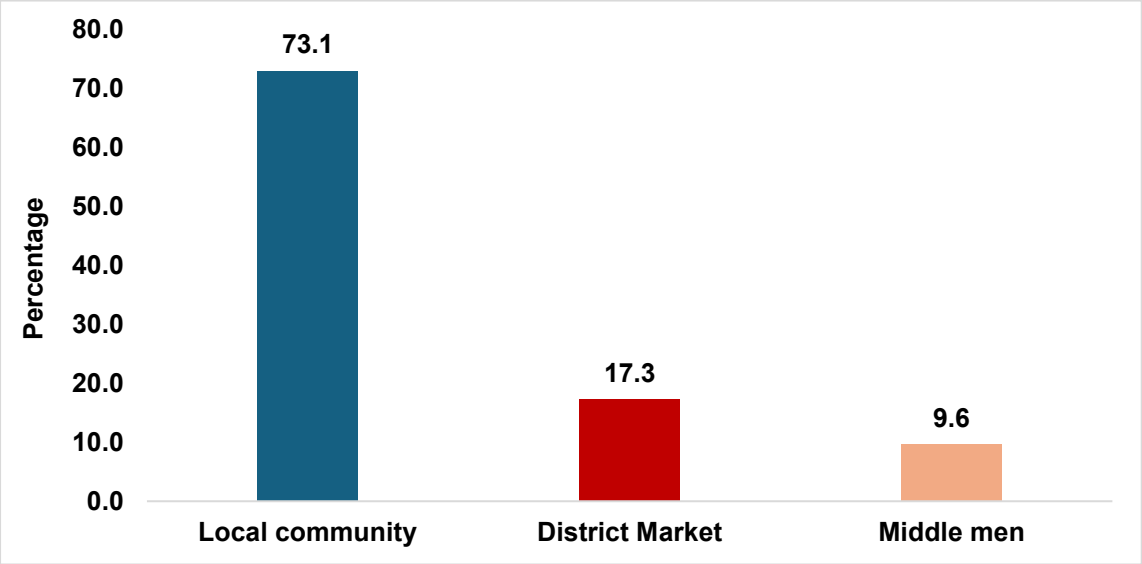
Those that sold Catfish, 82.0 percent was sold to local community markets, 9.7 percent was sold to the middlemen/retailers, 5.6 percent was sold in District markets, while 2.8 percent was sold to other buyers **(Figure 4.18)**.

Figure 4. 18: Catfish Farms by Buyers



For the farmers who harvested and sold Mirror Carp, 73.1 percent of them sold to local community markets, 17.3 percent sold in District markets, and 9.6 percent was sold to middlemen **(Figure 4.19)**.

Figure 4. 19: Mirror Carp Farms by Buyers



4.8 Aquaculture Farms that Did Not Harvest and Reason Why

This section presents information on aquaculture farms that did not harvest any fish during the reference period of July 2024 to June 2025 for major cultured species (Tilapia, Catfish, and Mirror Carp). The analysis highlights the main reasons for not harvesting across sub-regions.

4.8.1 Tilapia Culturing Farms

The UAC 2025 results indicated that 5 in every 10 farms that cultured Tilapia did not harvest during the reference period. Tilapia culturing farms that did not harvest, 68.4 percent attributed it to stock not being ready, 4.3 percent attributed it to theft, 2.7 percent attributed it death of stock, while 2.2 percent of the farms reported fish escape as the reason for not harvesting **(Table 4.11)**.

4.8.2 Catfish Culturing Farms

The UAC 2025 results indicated that a total of 54.8 percent of farms that cultured catfish did not harvest during the reference period. Catfish culturing farms that did not harvest, 66.8 percent attributed it to Stock not being ready **(Table 4.12)**.

4.8.3 Mirror Carp Culturing Farms

The UAC 2025 results indicated that 68.8 percent of mirror carp culturing farms did not harvest during the reference period. Of these, 59.6 percent attributed it to stock not being ready, 4.3 percent to death of stock, 3.1 percent to theft, and 0.6 percent to fish escape **(Table 4.13)**.

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Table 4. 1: Area Under Aquaculture Production in Square meters and Percentage

Background Characteristics	Land Based (SQM)	Percent	Water based (SQM)	Percent	Total Area (SQM)	Percent	Average Holding size (SQM)
National	**5,423,819**	**98.4**	**89,642**	**1.6**	**5,513,461**	**100.0**	**587**
Location							
Rural	3,347,094	61.7	40,921	45.6	3,388,015	61.4	533
Urban	2,076,725	38.3	48,721	54.4	2,125,446	38.6	701

Table 4. 2: Ponds by Surface Area, number and percentage

Background Characteristics	Total Ponds	Dimensions (Sqm) and Percent				
		<200	200 - 800	801- 2,000	2,001 – 4,000	>4,000
National	**17,106**	**57.5**	**37.0**	**4.2**	**0.8**	**0.5**
Location						
Rural	11,460	69.2	65.8	53.4	46.5	51.1
Urban	5,646	30.8	34.2	46.6	53.5	48.9

Table 4. 3: Rectangular Cages by Size, number and percentage

Background Characteristics	Dimensions (metres) and percent					
	Total Cages	3X3X3 or less	4X4X4	5X5X5	6X6X6	Above 6X6X6
National	**1,151**	**6.4**	**5.0**	**61.4**	**24.6**	**2.6**
Location						
Rural	395	14.7	8.9	31.9	42.5	2.0
Urban	756	2.0	3.0	76.9	15.2	2.9

Table 4. 4: Circular Cages by Size, number and percentage

Background Characteristics	Dimension (sqm) and percent				
	Total Cages	<100	100 - 200	201 - 300	>300
National	**662**	**80.8**	**15.0**	**0.2**	**4.1**
Location					
Rural	385	85.7	13.2	0.3	0.8
Urban	277	74.0	17.3	-	8.7

Table 4.5 a: Grow-out Tilapia Farms that Harvested, number and percentage

Background Characteristics	Total Tilapia Farms	Farms	
		Harvested	Share (Percent)
National	**7,555**	**4,212**	**55.8**
Location			
Rural	5,042	2,869	56.9
Urban	2,513	1,343	53.4
Sub-Region			
Kampala	15	6	40.0
Acholi	276	164	59.4
Ankole	881	525	59.6
Buganda	997	591	59.3
Bukedi	362	201	55.5
Bunyoro	707	383	54.2
Busoga	760	336	44.2
Bugisu	246	120	48.8
Karamoja	17	9	52.9
Kigezi	386	199	51.6
Lango	460	272	59.1
Madi	27	19	70.4
Rwenzori	765	432	56.5
Sebei	30	8	26.7
Teso	400	221	55.3
Tooro	826	499	60.4
West Nile	406	227	55.9

Table 4.5 b: Grow-out Catfish Farms that Harvested, number and percentage

Background Characteristics	Total Catfish Farms	Farms	
		Harvested	Share (Percent)
National	**4,576**	**2,359**	**51.6**
Location			
Rural	3,193	1,638	51.3
Urban	1,383	721	52.1
Sub-Region			
Kampala	16	14	87.5
Acholi	200	101	50.5
Ankole	292	157	53.8
Buganda	697	363	52.1
Bukedi	439	235	53.5
Bunyoro	223	96	43.0
Busoga	568	289	50.9
Bugisu	107	57	53.3
Karamoja	19	12	63.2
Kigezi	163	69	42.3
Lango	544	301	55.3
Madi	20	12	60.0
Rwenzori	138	53	38.4
Sebei	17	9	52.9
Teso	696	392	56.3
Tooro	203	82	40.4
West Nile	234	117	50.0

Table 4.5 c: Grow-out Mirror carp Farms that Harvested, number and percentage

Background Characteristics	Total Mirror carp Farms	Farms	
		Harvested	Share (Percent)
National	**234**	**94**	**40.2**
Location			
Rural	162	61	37.7
Urban	72	33	45.8

Table 4. 5: Grow-out Farms Production in Metric Tonnes and percentage

Background Characteristics	Total Number of Farms that harvested	Production	
		Total (MT)	Share (percent)
National	**5,273**	**65,444**	**100.0**
Location			
Rural	3,621	18,393	28.1
Urban	1,652	47,051	71.9
Sub-Region			
Kampala	15	50	0.0
Acholi	182	359	0.5
Ankole	571	1,391	2.1
Buganda	729	55,704	85.1
Bukedi	321	893	1.4
Bunyoro	410	901	1.4
Busoga	493	2,081	3.2
Bugisu	161	230	0.4
Karamoja	20	63	0.1
Kigezi	228	271	0.4
Lango	391	767	1.2
Madi	25	45	0.1
Rwenzori	456	586	0.9
Sebei	23	33	0.0
Teso	467	953	1.5
Tooro	534	644	1.0
West Nile	247	476	0.7

Table 4. 6: Grow-out Farms Production by Fish Species in Metric Tonnes, Number and percentage

Background Characteristics	Production							
	Tilapia	Percent	Catfish	Percent	Mirror Carp	Percent	Other Species	Percent
National	**53,924.1**	**82.4**	**11,347.4**	**17.3**	**111.4**	**0.2**	**61.1**	0.1
Location								
Rural	15,041.9	27.9	3,242.7	28.6	88.2	79.1	20.4	33.4
Urban	38,882.1	72.1	8,104.6	71.4	23.3	20.9	40.7	66.6
Sub-Region								
Kampala	10.0	0.0	40.0	0.0	-	-	-	-
Acholi	209.3	0.4	147.2	1.3	2.0	1.8	0.0	0.0
Ankole	1,209.2	2.2	176.5	1.6	2.0	1.8	3.0	4.9
Buganda	47,383	7.9	8,254	72.7	32	28.7	35	57.2
Bukedi	446.0	0.8	440.2	3.9	4.6	4.2	1.9	3.0
Bunyoro	737.3	1.4	160.9	1.4	0.8	0.7	2.0	3.3
Busoga	1,560.6	2.9	512.2	4.5	7.3	6.5	1.0	1.6
Bugisu	133.8	0.2	70.2	0.6	26.0	23.4	0.0	0.0
Karamoja	9.5	0.0	41.6	0.4	0.0	0.0	12.2	20.0
Kigezi	199.2	0.4	67.0	0.6	4.0	3.6	1.2	2.0
Lango	316.7	0.6	444.4	3.9	4.5	4.1	1.0	1.6
Madi	22.8	0.0	20.0	0.2	1.8	1.6	0.0	0.0
Rwenzori	506.7	0.9	74.3	0.7	5.2	4.7	0.0	0.0
Sebei	10.2	0.0	11.3	0.1	11.2	10.0	0.0	0.0
Teso	356.3	0.7	595.2	5.2	0.2	0.2	1.0	1.6
Tooro	552.4	1.0	84.1	0.7	4.1	3.7	3.0	4.9
West Nile	261.6	0.5	208.7	1.8	5.8	5.2	0.0	0.0

Table 4. 7: Disposition of Grow-out Farm Production in Metric Tonnes

Background Characteristics	Total Production	Disposition			
		Consumed	Sold	Lost	Processed
National	65,444	6,675	57,460	262	1,047
Location					
Rural	18,393	1,915	16,073	166	239
Urban	47,051	4,760	41,386	96	808

Table 4. 8: Main cause of post-harvest Tilapia loss by Tilapia Farms

Domain	Farms that reported Loss	Main Cause of the Loss			
		Theft	Spoilage	Predators	Others Specify
Uganda	**318**	**56**	**174**	**62**	**26**
Location					
Rural	216	41	117	37	21
Urban	102	15	57	25	5

Table 4. 9: Main cause of post-harvest Catfish loss by Catfish Farms

Domain	Farms that reported Loss	Main Cause of the Loss			
		Theft	Spoilage	Predators	Others Specify
Uganda	**153**	**36**	**68**	**35**	**14**
Location					
Rural	118	31	54	26	7
Urban	35	5	14	9	7

Table 4. 10: Reasons for Aquaculture farms that did not harvest Tilapia

Background Characteristics	Number of farms that did not harvest	Death of stock	Stock not ready for harvest	Theft	Fish escape	Other reason	Not stated
National	**3,772**	**2.7**	**68.4**	**4.3**	**2.2**	**6.4**	**16.0**
Location							
Rural	2,428	2.6	69.2	4.8	2.5	6.3	14.7
Urban	1,288	3.0	70.0	3.6	1.6	7.1	14.7

Table 4. 11: Reasons for Aquaculture farms that did not harvest Catfish

Background Characteristics	Number of farms that did not harvest	Death of stock	Stock not ready for harvest	Theft	Fish escape	Other reason	Not stated
National	**2,508**	**2.1**	**66.8**	**5.3**	**2.5**	**7.2**	**16.1**
Location							
Rural	1,729	2.3	67.9	5.4	2.7	7.1	14.7
Urban	747	1.7	67.2	5.4	2.1	7.6	15.9

Table 4. 12: Reasons for Aquaculture farms that did not harvest Mirror Carp

Background Characteristics	Number of farms that did not harvest	Death of stock	Stock not ready for harvest	Theft	Fish escape	Other reason	Not stated
National	**161**	**4.3**	**59.6**	**3.1**	**0.6**	**11.2**	**21.1**
Location							
Rural	113	4.4	58.4	3.5	0.9	10.6	22.1
Urban	47	4.3	63.8	2.1	-	12.8	17.0

CHAPTER FIVE: AQUACULTURE INPUTS AND EXTENSION SERVICES

Key Findings

- **Use of Fish Feeds**: The results showed that 8,097 farms had at least used fish feed during the census reference period. About 59.3 percent of the grow-out farms used farm made feeds, 50.8 percent used commercial floating feeds, 43.1 percent used plant by- product and wastes.
- **Quantity of Fish Feed Used**: From July 2024 to June 2025, 1.18 million Metric Tonnes of fish feed were used of which 99.8 percent was commercial floating feed.
- **Quantity of Fish Seed Used:** The total quantity of fish seed used was about 93 million. Of this total, 75.1 percent of the seed was for Tilapia, 24.2 percent for Catfish and 0.4 percent for Mirror carp.
- **Labour in Aquaculture Farms:** 5,233 farms hired workers during the reference period.
- **Access to Extension Services:** 53.3 percent of the aquaculture farms received extension services during the reference period.

The chapter presents findings on feed types used, source of feeds, quantities of feeds used, seed, access to equipment and extension services received.

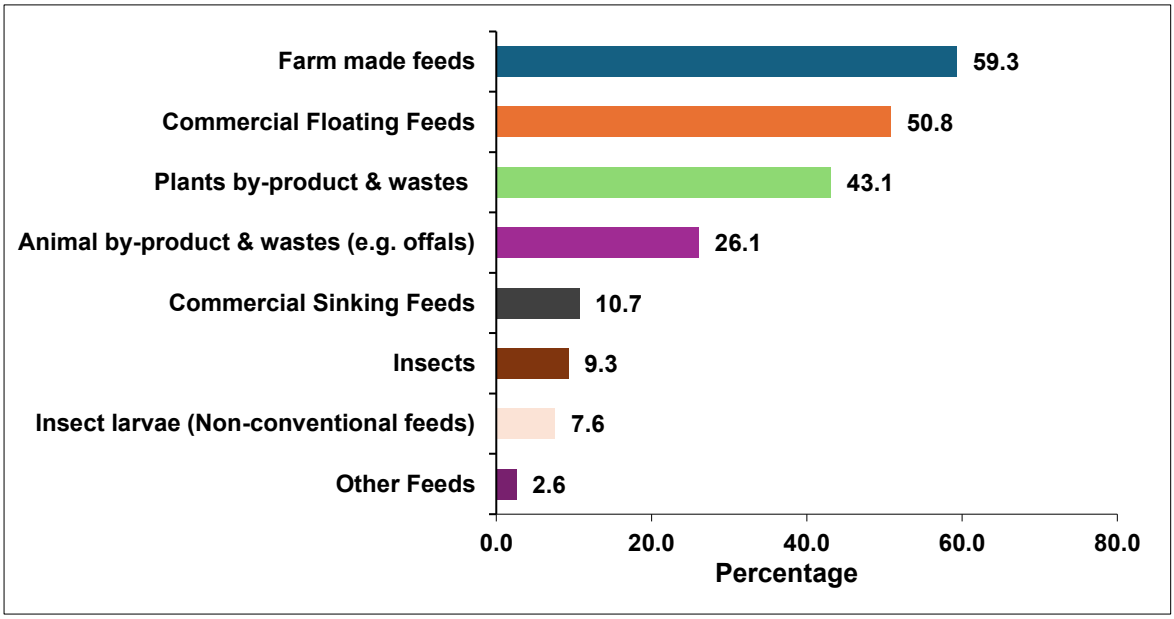
5.1 Aquaculture Feeds

5.1.1 Type of Aquaculture Feeds used

Results revealed that of 9,390 grow-out farms, 8,097 farms representing 86.2 percent reported to have used some fish feed. Farm-made feeds were the commonly used feeds accounting for 59.3 percent of the feeds used by grow-out farms. Commercial floating feeds were used by 50.8 percent of the farms, while 43.1 percent used Plant by- product and wastes **(Figure 5.1)**.

At sub-regional level, Karamoja had the highest number of grow-out farms that used farm made feeds representing 86.8 percent and Bunyoro with 38.8 percent had the least. Madi sub-region had the highest number of grow-out farms that used commercial floating feeds (77.8%) while Rwenzori with 22.6 percent had the least. Sebei with had 22.4 percent grow-out farms that used commercial sinking feeds and Madi with 2.8 percent had the least. Bugisu had the highest number of grow-out farms that used plant by-product & wastes (65.9%) while Madi with 5.6 percent had the least. **(Table 5.1)**.

Figure 5. 1: Percentage of Aquaculture Farms by Feed Type Used

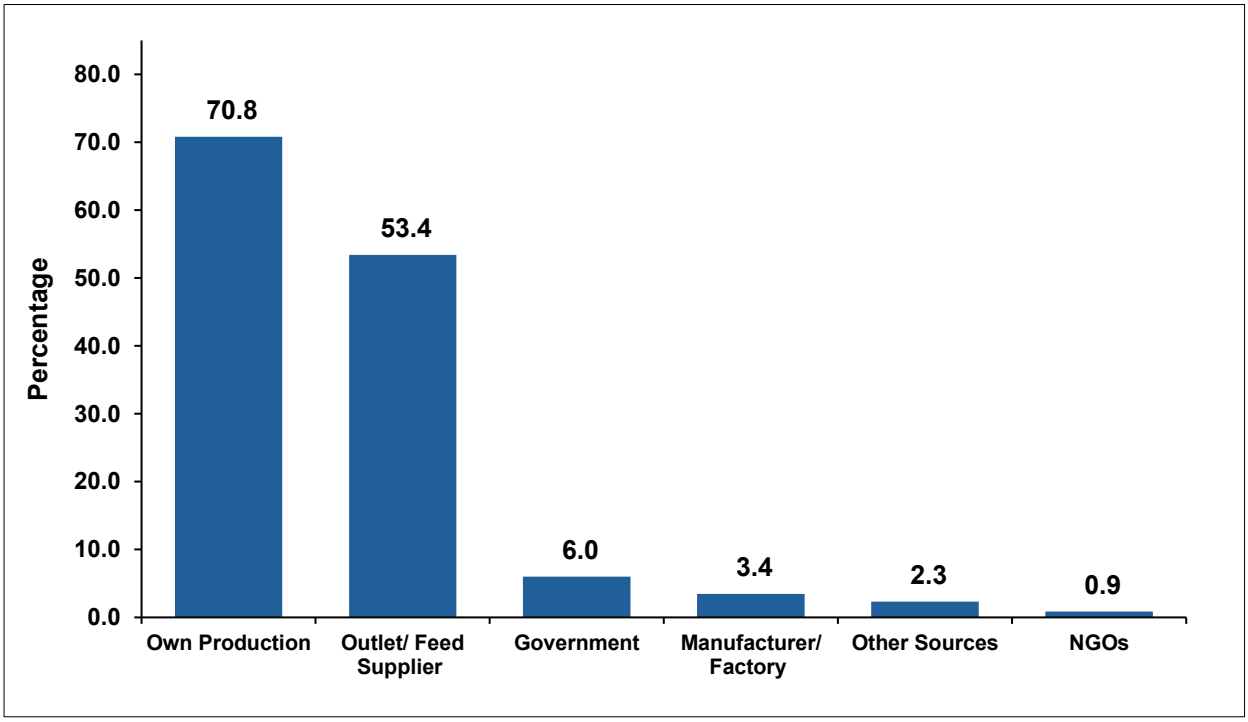


5.1.2 Source of Feed

Results indicated that, of 8,097 farms that used feeds, 70.8 percent produced their own feeds, 53.4 percent mainly sourced from Outlet/feed supplier, and 6.0 percent from government **(Figure 5.2)**.

At sub regional level, 86.9 percent of the farms that used feeds in Rwenzori reported own production as the source of feed while only 22.6 percent of farms in Madi used feeds from own production. For farms that reported to have sourced feeds from outlet or feed supplier, Madi with 77.4 percent had the highest number of and Rwenzori with 35.2 percent had the least **(Table 5.2)**.

Figure 5. 2: Percentage of Aquaculture Farms by Source of Feed



5.1.3 Feed Quantity Used (Metric Tonnes)

The total feed quantity used by aquaculture farms was estimated at 1.19 million Metric Tonnes between July 2024 to June 2025. Of these 99.8 percent were commercial floating feeds and only 0.2 percent were other feed types **(Table 5.3)**.

5.2 Aquaculture Seed

Seed is a critical input in aquaculture, determining both the scale of production and the quality of yields. The type and stage of seed stocked, whether fry, fingerlings or juveniles, affects growth rates, survival and market readiness of fish. This section presents results on the type of seed used by fish species cultured.

5.2.1 Type of Seed used

The results indicated that for all the cultured species; Tilapia, Catfish and Mirror Carp, fingerlings were the predominant seed type used by aquaculture farms between July 2024 and June 2025.

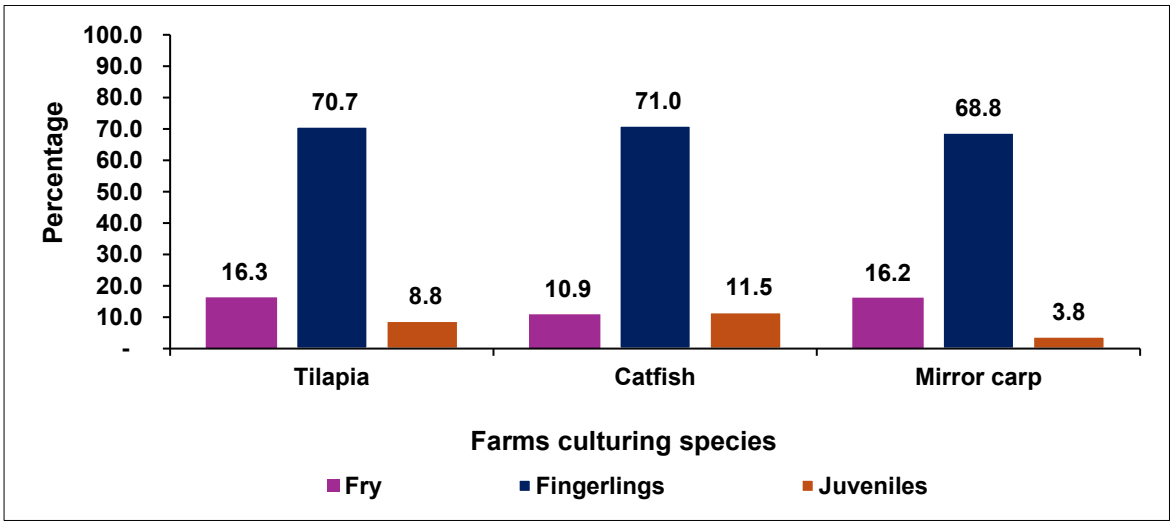
For farms that cultured tilapia, 70.7 percent used fingerlings for seed, 16.3 percent used Fries while only 8.8 percent reported to have used Juveniles. For farms that

cultured catfish, 71.0 percent used fingerlings, 11.5 percent used Juveniles while 10.9 percent used fries. Similarly, about seven in every ten Mirror carp culturing farms used fingerlings whereas 16.2 percent used fries and only 3.8 percent used Juveniles **(Figure 5.3, Table 5.4a Table 5.4b and Table 5.4c)**.

At sub-regional level, for farms that cultured tilapia, Tilapia fingerings were most used in Sebei by all farmers, and least used Busoga by 60.0 percent of the farmers. On the other hand, Tilapia fries were most used in Kigezi (31.6%) and least used in West Nile (0.7%).

Among farms that cultured Catfish, Catfish fingerings were most used in Sebei representing 94.1 percent and least used in Bunyoro by 55.2 percent of the farmers. Catfish fries were most used in Buganda (21.7%) and least used in West Nile (0.4%) **(Figure 5.3, Table 5.4a Table 5.4b and Table 5.4c)**.

Figure 5. 3: Percentage of Aquaculture farms by type of fish seed used and species

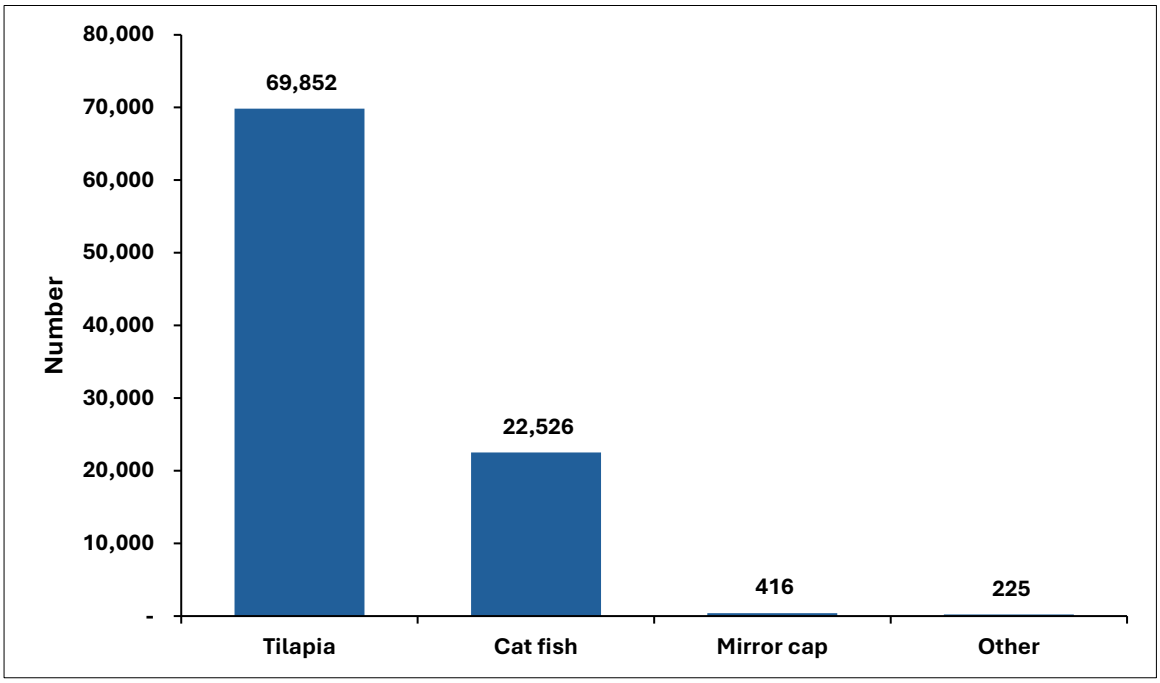


5.2.2 Seed Quantity

The total quantity of fish seed used was estimated at 93 million. Of this, Tilapia seed used was 69.8 million (75.1%), Catfish was 22.5 million (24.2%) and Mirror carp was 415.5 (0.4%).

The aquaculture farms in rural areas used 49.3 million of seed compared to 43.7 million used by urban farms **(Figure 5.4 and Table 5.5**).

Figure 5. 4: Number of Fish Seed Used by Species '000'



At sub-regional level, Buganda with 39.1 million reported to have used the highest quantity of seed representing 42.0 percent while Madi sub region with 0.2 million used the least.

By species, Buganda with 46.8 percent and Busoga with 18.9 percent used highest quantity of tilapia seed used. Similarly, the highest quantity of catfish seed was used in Buganda (28.0%) and Busoga (25.7%), whereas Bugisu with 19.2 percent and Buganda with 18.3 percent used highest quantity of Mirror Carp seed **(Table 5.5**).

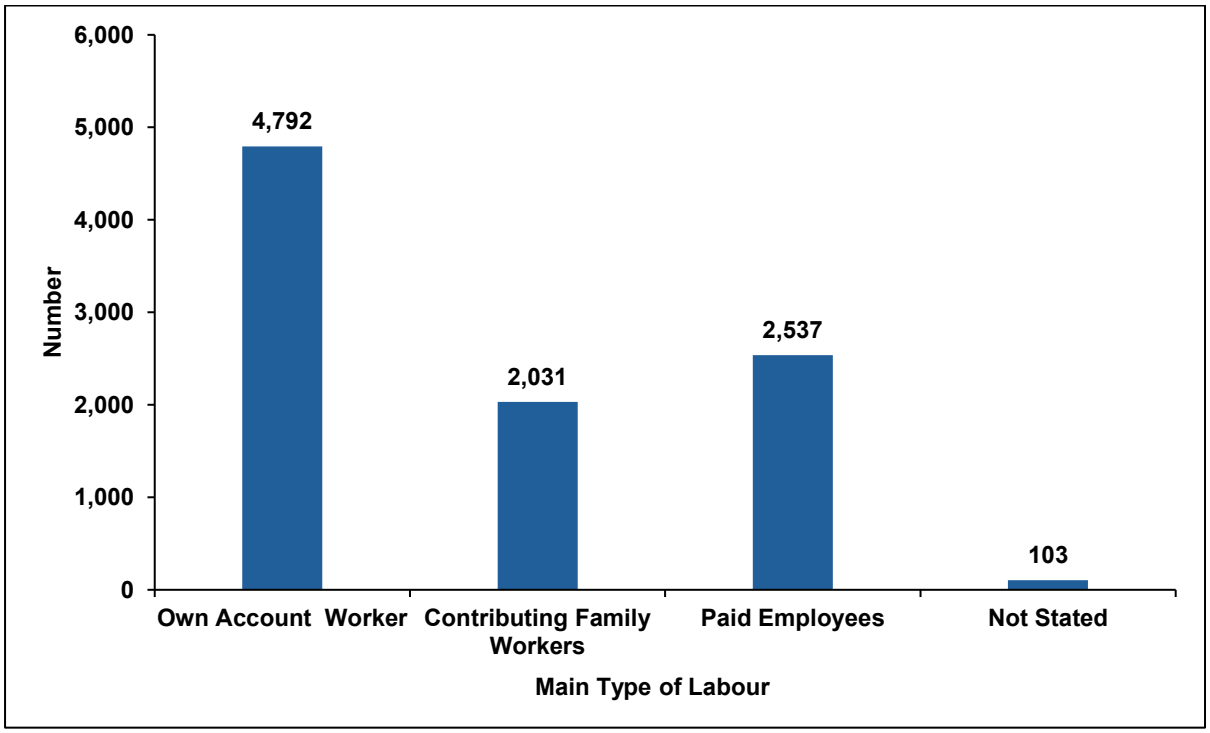
5.3 Aquaculture Labour

Most employed labourers were used in aquaculture activities such as Construction of production units like ponds, feeding of fish, Production unit maintenance, Sampling / grading, Harvesting.

5.3.1 Status of Employment on Aquaculture Farm.

The UAC 2025 findings indicated that of the 9,463 aquaculture farms, 4,792 farms mainly used own-account workers, 2,031 farms used contributing family workers, and 2,537 used paid employees **(Figure 5.5)**.

Figure 5. 5: Aquaculture Farms by Status of Employment

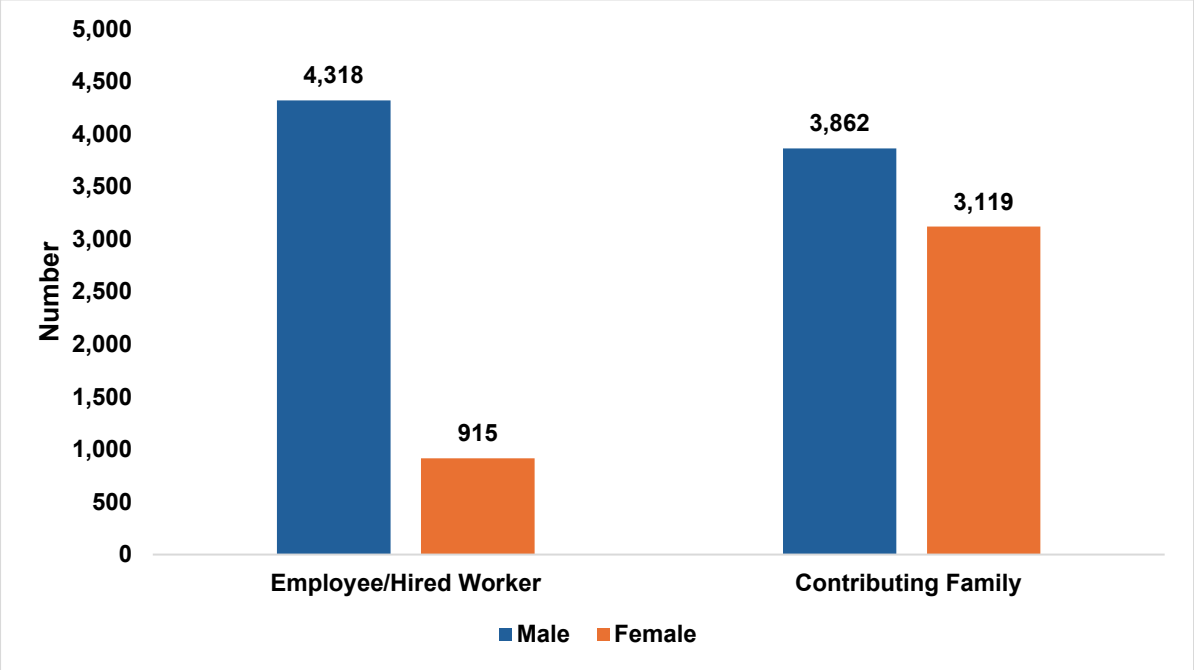


5.3.2 Aquaculture Farms by Type of Worker Used

During the census, farms were asked about the type of workers they used. The categories included; Employees/Hired workers and contributing family workers. These were disaggregated by sex.

The results indicated that 4,318 farms hired Male employees and 915 farms hired Female employees. Similarly, 3,862 farms used Male Contributing family workers while 3,119 farms used Female Contributing family workers **(Figure 5.6 and Table 5.7)**.

Figure 5. 6: Aquaculture Farms by Type of Worker Used and Sex of Worker



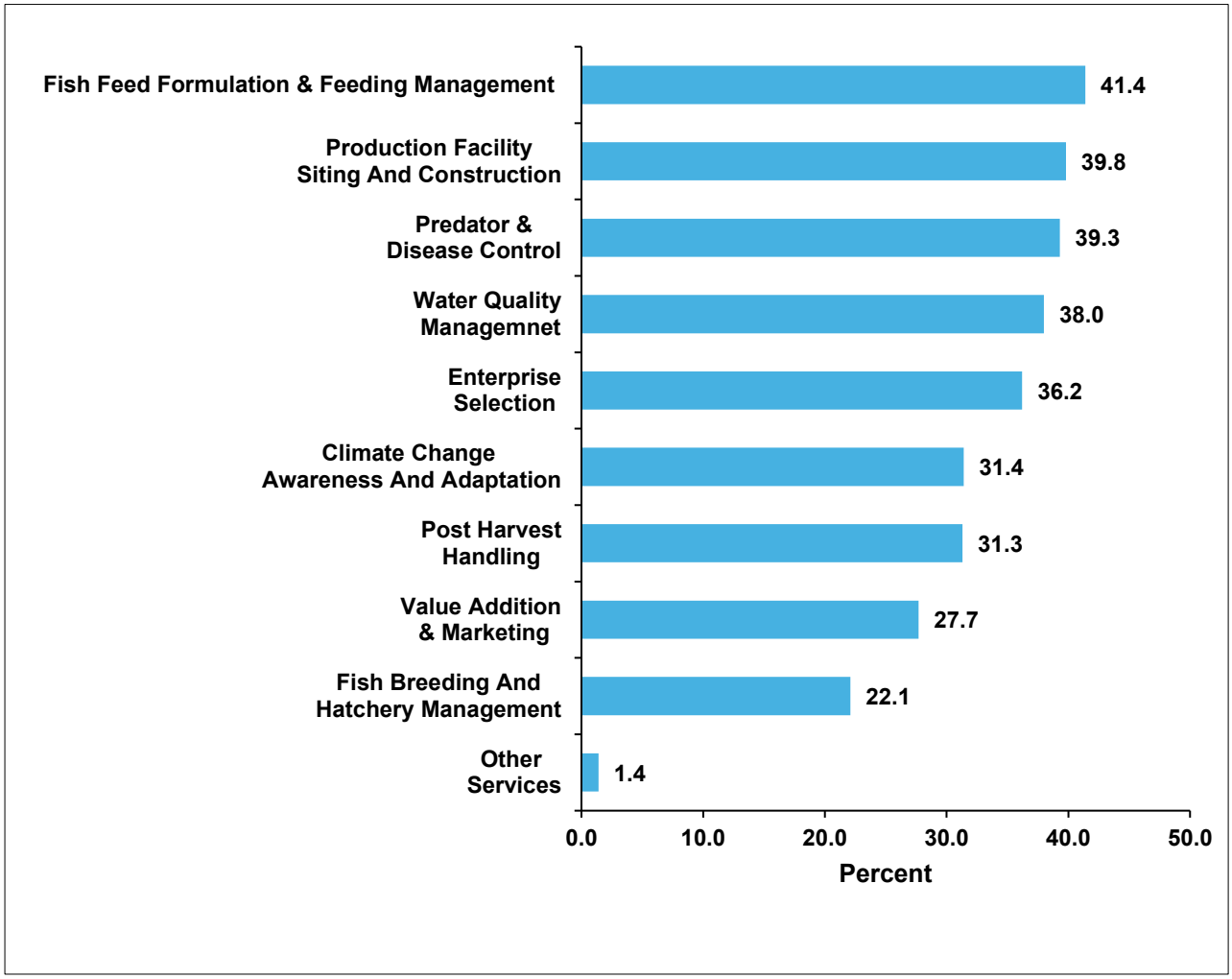
5.4 Access to Extension Services and Aquaculture Credit

5.4.1 Access to Aquaculture Extension Services

Agricultural extension services include interventions/activities by government and Non-State Actors (NSAs) that facilitate farmers access to knowledge, information, and technologies; mediate their interaction with other relevant organizations; and assist them to develop their technical and management capacity in agriculture (MAAIF, 2026).

Nationally, the results showed that 41.4 percent of the farms received extension services on Fish Feed Formulation & Feeding Management, Production Facility Siting and Construction (39.8%) and Predator & Disease Control (39.3%). Fish Breeding and Hatchery Management was the least received extension services reported to have been accessed by 22.1 percent of the farms **(Figure 5.7 and in Table 5.8)**.

Figure 5. 7: Farms Accessing Extension Services, percent



5.4.1 Access to Aquaculture Credit and membership to farmer's group

The results showed that, out of 9,390 grow-out aquaculture farms, 866 farms had access to aquaculture credit. Farms that reported to have acquired or received aquaculture loan were 410, **(Table 5.9)**.

Buganda with 66 farms had the highest number of aquaculture farms that acquired aquaculture loan during the reference period, while Kampala and Madi had the least with only one (1) farm each **(Table 5.9)**.

The results also indicated that of 9,390 grow-out farms, 3,116 (33.2%) belonged to aquaculture farmers' group/cooperative union during the reference period. Of these, 2,028 farms were in rural areas and 1,088 were in urban areas.

At sub-regional level, Busoga had the highest number of farms that belonged to aquaculture farmer groups/cooperative union with 531 farms (17.0%), and the least was Kampala and Karamoja each with only one (1) farm, **(Table 5.10)**.

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Table 5.10: Aquaculture Farms with Membership to Groups or Cooperative Union

Table 5. 1: Grow-out Farms by Feed Type used, number and percentage

Background Characteristics	Grow out Farms	Any Feeds	Feed Type used (percent)							
			Commercial Floating Feeds	Commercial Sinking Feeds	Farm made feeds	Plants by-product & wastes	Animal by-product & wastes	Insect larvae (Black Soldier Fly)	Insects	Other Feeds
National	9,390	86.2	50.8	10.7	59.3	43.1	26.1	7.6	9.3	2.6
Location										
Rural	6,360	86.2	47.5	10.5	56.8	45.6	26.8	8.2	10.3	2.5
Urban	3,030	86.3	57.7	11.3	64.5	37.7	24.7	6.3	7.1	2.7
Sub-Region										
Kampala	19	94.7	73.7	-	78.9	57.9	31.6	15.8	5.3	10.5
Acholi	312	73.1	50.6	9.9	73.4	23.7	20.8	6.7	4.8	4.8
Ankole	951	76.3	45.4	5.7	74.1	38.5	26.1	2.2	1.6	0.5
Buganda	1,240	87.1	66.9	11.6	66.6	33.8	20.2	6.0	3.9	2.6
Bukedi	556	83.6	57.4	9.4	55.9	32.6	26.3	15.3	29.7	2.7
Bunyoro	752	89.5	47.1	14.4	38.8	56.4	26.3	6.6	12.8	0.7
Busoga	1,032	92.4	68.8	10.9	55.0	41.2	32.7	7.1	4.8	0.4
Bugisu	305	93.1	60.7	21.0	54.1	65.9	57.4	15.7	13.1	5.6
Karamoja	38	44.7	34.2	5.3	86.8	13.2	7.9	2.6	2.6	-
Kigezi	455	89.0	52.7	7.3	67.3	56.5	38.7	12.1	11.2	3.5
Lango	657	79.6	43.4	10.2	65.1	25.1	16.7	8.1	11.4	5.3
Madi	36	86.1	77.8	2.8	86.1	5.6	8.3	5.6	5.6	2.8
Rwenzori	818	89.5	22.6	7.0	57.1	60.3	17.7	1.8	1.8	1.0
Sebei	49	85.7	53.1	22.4	59.2	57.1	55.1	2.0	2.0	-
Teso	808	88.9	44.6	11.9	53.6	41.3	30.9	19.4	25.6	3.6
Tooro	901	87.9	40.1	10.7	54.4	55.2	21.4	2.7	4.8	3.0
West Nile	461	88.7	57.9	17.4	51.8	35.6	25.8	6.3	9.8	6.5

The percentages are not additive, a farm can use more than one feed type

Table 5. 2: Grow-out Farms by Source of Feeds, number

Background Characteristics	Farms	Own Production	Outlet/ Feed Supplier	Government	NGOs	Manufacturer/ Factory	Other Sources
National	**8,097**	**5,731**	**4,321**	**486**	**71**	**279**	**187**
Location							
Rural	5,482	4,048	2,775	361	57	178	126
Urban	2,615	1,683	1,546	125	14	101	61
Sub-Region							
Kampala	18	14	15	-	-	-	1
Acholi	228	122	128	37	7	9	7
Ankole	726	489	434	39	-	23	9
Buganda	1,080	590	676	108	3	71	34
Bukedi	465	302	351	9	1	9	4
Bunyoro	673	562	362	47	4	21	-
Busoga	954	553	644	36	4	15	6
Bugisu	284	221	144	50	2	16	7
Karamoja	17	9	8	1	2	-	-
Kigezi	405	314	201	33	11	10	2
Lango	523	374	192	19	4	35	61
Madi	31	7	24	3	-	1	-
Rwenzori	732	636	258	13	2	6	6
Sebei	42	34	18	8	-	-	-
Teso	718	552	312	49	4	7	35
Tooro	792	654	360	10	3	40	3
West Nile	409	298	194	24	24	16	12

The numbers are not additive, a farm can use more than one source

Table 5. 3: Quantity of Feed used by Type, Metric Tonnes and percentage

Background Characteristics	Total feed Quantity	Percent	Commercial Floating Feeds	Percent	Commercial Sinking Feeds	Percent	Farm made feeds	Percent	Insect larvae (Black Soldier Fly)	Percent
National	1,187,046.1	100.0	1,184,496.0	100.0	1,237.5	100.0	1,307.8	100.0	4.8	100.0
Location										
Rural	676,713.6	57.0	675,214.2	57.0	297.8	24.1	1,197.4	91.6	4.1	84.5
Urban	510,332.9	43.0	509,282.1	43.0	939.6	75.9	110.4	8.4	0.8	15.5

Table 5.4 a: Grow-out Tilapia Farms by Type of Fish Seed Used, number

Background Characteristics	Total Farms	Number of Tilapia farms using;		
		Fry	Fingerlings	Juveniles
National	**7,555**	1,228	5,340	668
Location				
Rural	5,042	838	3,599	406
Urban	2,513	390	1,741	262
Sub-Region				
Kampala	9	2	8	1
Acholi	276	20	242	15
Ankole	881	168	554	131
Buganda	997	269	608	94
Bukedi	362	21	296	21
Bunyoro	707	125	434	61
Busoga	760	213	456	89
Bugisu	246	32	182	11
Karamoja	17	1	14	1
Kigezi	386	122	241	13
Lango	460	32	379	44
Madi	27	5	19	-
Rwenzori	765	122	575	72
Sebei	30	-	30	-
Teso	400	43	284	42
Tooro	826	50	631	63
West Nile	406	3	387	10

The numbers are not additive, a farm can use more than one seed type

Table 5.4 b: Grow-out Catfish Farms by Type of Fish Seed Used, number

Background Characteristics	Total Farms	Number of Catfish farms using;		
		Fry	Fingerlings	Juveniles
National	**4,576**	**499**	**3,247**	**526**
Location				
Rural	3,193	341	2,248	379
Urban	1,383	158	999	147
Sub-Region				
Kampala	16	5	12	1
Acholi	200	20	166	14
Ankole	292	35	203	48
Buganda	697	150	421	71
Bukedi	439	24	339	40
Bunyoro	223	20	123	43
Busoga	568	78	389	88
Bugisu	107	15	74	11
Karamoja	19	-	12	6
Kigezi	163	24	119	3
Lango	544	34	434	67
Madi	20	4	13	-
Rwenzori	138	23	81	7
Sebei	17	1	16	-
Teso	696	53	494	110
Tooro	203	12	135	12
West Nile	234	1	216	5

The numbers are not additive, a farm can use more than one seed type

Table 5.4 c: Grow-out Mirror Carp Farms by Type of Fish Seed Used, number

Background Characteristics	Total Farms	Number of Mirror carp farms using;		
		Fry	Fingerlings	Juveniles
National	**234**	**38**	**161**	**9**
Location				
Rural	162	25	110	4
Urban	72	13	51	5

Table 5. 4: Quantity of Fingerlings Used by Species, number and percentage

Background Characteristics	Total Fingerlings	Percent	Tilapia	Percent	Catfish	Percent	Mirror cap	Percent	Other Species*	Percent
National	**93,026,704**	**100.0**	**69,852,417**	**75.1**	**22,525,596**	**24.2**	**415,587**	**0.4**	**224,504**	**0.2**
Location										
Rural	49,333,965	53.0	32,288,611	46.2	16,632,297	73.84	259,109	62.3	147,548	65.7
Urban	43,692,739	47.0	37,563,806	53.8	5,893,299	26.16	156,478	37.7	76,956	34.3
Sub-Region										
Kampala	327,940	0.4	211,870	0.3	115,570	0.5	-	-	500	0.2
Acholi	3,325,684	3.6	2,318,057	3.3	944,827	4.2	56,800	13.7	6,000	2.7
Ankole	9,734,969	10.5	8,809,339	12.6	913,798	4.1	8,100	1.9	3,732	1.7
Buganda	39,071,508	42.0	32,677,586	46.8	6,299,677	28.0	75,864	18.3	18,378	8.2
Bukedi	2,555,183	2.7	1,358,266	1.9	1,181,932	5.2	8,015	1.9	6,970	3.1
Bunyoro	2,307,071	2.5	1,810,782	2.6	494,425	2.2	-	-	1,864	0.8
Busoga	19,012,806	20.4	13,198,592	18.9	5,793,789	25.7	17,595	4.2	1,480	0.7
Bugisu	541,188	0.6	335,469	0.5	113,962	0.5	79,650	19.2	12,107	5.4
Karamoja	311,444	0.3	107,090	0.2	110,114	0.5	100	0.0	94,140	41.9
Kigezi	822,601	0.9	569,718	0.8	233,031	1.0	18,900	4.5	952	0.4
Lango	2,698,231	2.9	1,719,499	2.5	916,936	4.1	53,316	12.8	8,480	3.8
Madi	194,393	0.2	146,309	0.2	46,084	0.2	2,000	0.5	-	-
Rwenzori	1,623,200	1.7	1,411,397	2.0	185,618	0.8	22,875	5.5	3,310	1.5
Sebei	194,890	0.2	137,630	0.2	37,410	0.2	19,850	4.8	-	-
Teso	5,329,730	5.7	1,853,467	2.7	3,468,703	15.4	4,000	1.0	3,560	1.6
Tooro	3,044,509	3.3	2,031,067	2.9	927,353	4.1	25,398	6.1	60,691	27.0
West Nile	1,924,160	2.1	1,156,279	1.7	742,367	3.3	23,124	5.6	2,340	1.0

Other species include Silver carp, Rainbow trout, Grass carp

Table 5. 5: Aquaculture Farms by the Main Type of Labour Used, number

Background Characteristics	Total Farms	Own Account Worker	Paid Employees	Contributing Family Workers	Not Stated
National	**9,463**	**4,792**	**2,537**	**2,031**	**103**
Location					
Rural	6,408	3,364	1,491	1,483	70
Urban	3,055	1,428	1,046	548	33

Table 5. 6: Aquaculture Farms by Labour Category, number

Background Characteristics	Total Farms	Employees/Hired Workers		Contributing Family Workers	
		Male	Female	Male	Female
National	**9,463**	**4,318**	**915**	**3,862**	**3,119**
Location					
Rural	6,408	2,755	584	2,746	2,245
Urban	3,055	1,563	331	1,116	874

Table 5. 7: Grow-out farms with access to extension services and form of extension service received, percentage

Background Characteristics	Access to any extension Services	Form of Extension Service received (percent)									
		Enterprise Selection	Production Facility Siting and Construction	Fish Feed Formulation & Feeding Management	Predator & Disease Control	Post Harvest Handling	Value Addition & Marketing	Water Quality Management	Fish Breeding and Hatchery Management	Climate Change Awareness and Adaptation	Other Services
National	**53.3**	**36.2**	**39.8**	**41.4**	**39.3**	**31.3**	**27.7**	**38.0**	**22.1**	**31.4**	**1.4**
Location											
Rural	53.4	35.9	40.3	41.9	39.4	31.5	28.2	38.2	22.0	32.6	1.5
Urban	53.2	36.7	38.6	40.6	39.0	30.8	26.7	37.6	22.4	29.0	1.2
Sub-Region											
Kampala	55.0	30.0	20.0	30.0	25.0	40.0	40.0	35.0	40.0	30.0	-
Acholi	34.9	15.9	24.1	23.5	21.9	14.0	10.2	20.0	8.9	17.8	0.6
Ankole	44.1	29.2	29.2	32.9	30.3	24.2	20.9	26.8	15.9	23.8	0.1
Buganda	64.1	45.3	46.5	47.9	45.5	34.0	30.7	44.5	23.3	32.3	1.2
Bukedi	57.1	39.2	41.5	48.6	44.0	33.9	26.8	42.7	22.5	33.5	3.4
Bunyoro	50.3	22.9	36.7	43.0	34.2	28.1	24.7	36.3	14.8	27.7	0.8
Busoga	70.4	49.5	56.3	58.3	58.7	43.7	39.2	51.9	34.6	45.8	0.2
Bugisu	51.3	34.6	37.9	38.6	35.3	31.0	26.8	39.2	15.7	33.7	6.5
Karamoja	28.2	15.4	17.9	10.3	2.6	10.3	5.1	15.4	2.6	12.8	-
Kigezi	68.1	55.7	59.0	60.1	56.4	49.9	48.4	54.2	46.2	52.1	3.9
Lango	35.0	18.7	23.4	26.3	28.0	19.8	16.3	24.8	7.9	19.8	0.5
Madi	59.5	37.8	24.3	21.6	16.2	8.1	-	18.9	5.4	18.9	-
Rwenzori	48.1	35.7	38.3	41.2	40.7	34.0	31.8	39.9	26.4	34.6	0.5
Sebei	81.6	67.3	73.5	75.5	77.6	73.5	61.2	81.6	61.2	63.3	-
Teso	41.7	24.7	29.0	26.2	23.6	21.0	17.2	25.6	11.9	19.0	1.1
Tooro	50.0	34.6	36.4	33.4	31.7	26.4	24.6	31.9	21.9	25.8	3.3
West Nile	65.7	54.9	52.1	52.1	52.7	42.3	38.4	51.6	33.0	45.3	0.7

Table 5. 13: Aquaculture Farms with Access to Aquaculture Credit

Background Characteristics	Active Grow out Farms	Have Access to Agriculture or Aquaculture Finance	Received Aquaculture Loan (Finance) To Be Used Specifically for Aquaculture
National	**9,390**	**866**	**410**
Location			
Rural	6,360	552	263
Urban	3,030	314	147
Sub-Region			
Acholi	312	24	2
Ankole	951	75	36
Buganda	1,240	120	65
Kampala	19	1	1
Bukedi	556	89	24
Bunyoro	752	37	26
Busoga	1,032	125	66
Bugisu	305	37	22
Karamoja	38	2	-
Kigezi	455	44	20
Lango	657	46	23
Madi	36	1	1
Rwenzori	818	58	39
Sebei	49	9	6
Teso	808	49	27
Tooro	901	125	47
West Nile	461	24	5

Table 5. 14: Aquaculture Farms with Membership to Groups or Cooperative Union

Background Characteristics	Active Grow out Farms	Belong To any Aquaculture Farmers Groups or Cooperative Union
National	**9,390**	**3,116**
Location		
Rural	6,360	2,028
Urban	3,030	1,088
Sub-Region		
Acholi	312	85
Ankole	951	268
Buganda	1,240	416
Kampala	19	1
Bukedi	556	235
Bunyoro	752	229
Busoga	1,032	531
Bugisu	305	83
Karamoja	38	1
Kigezi	455	171
Lango	657	214
Madi	36	2
Rwenzori	818	263
Sebei	49	10
Teso	808	218
Tooro	901	239
West Nile	461	150

CHAPTER SIX: HATCHERIES

Key Findings

- **Aquaculture hatcheries:** A total of 273 hatcheries were recorded in the year 2024/2025. Of these, 90.5 percent bred tilapia, 43.6 percent bred catfish, 7.7 percent bred mirror carp and 4.8 percent bred other fish species.
- **Hatchery production:** The total installed seed production capacity was 200.1 million, while actual production was 149.9 million seed. Urban hatcheries contributed 73.3 percent of total seed production.
- **Source of broodstock for tilapia:** 57.9 percent of hatcheries obtained broodstock from own farm.
- **Source of broodstock for catfish**: 54.6 percent of hatcheries obtained broodstock from own farm.
- **Sex reversal for tilapia:** Of the 247 tilapia hatcheries, 21.9 percent practiced sex reversal, 51.8 percent did not practice, while 26.3 percent did not state.

6.0 Introduction

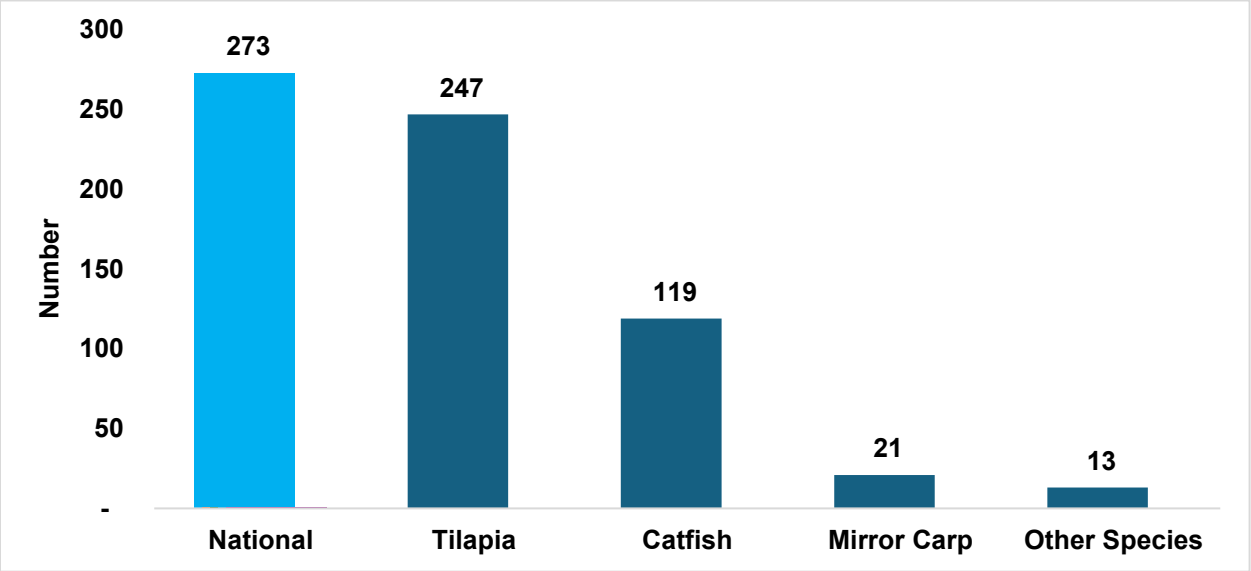
This chapter presents findings on hatcheries by type of fish species bred, installed production capacity and actual seed production, sources of broodstock, survival rates of hatchlings, and adoption of sex reversal technologies

6.1 Hatcheries by Type of Fish Species Bred

A hatchery is a specialized facility used for breeding, hatching, and rearing early-stage aquatic organisms before transfer to nurseries or grow-out systems.

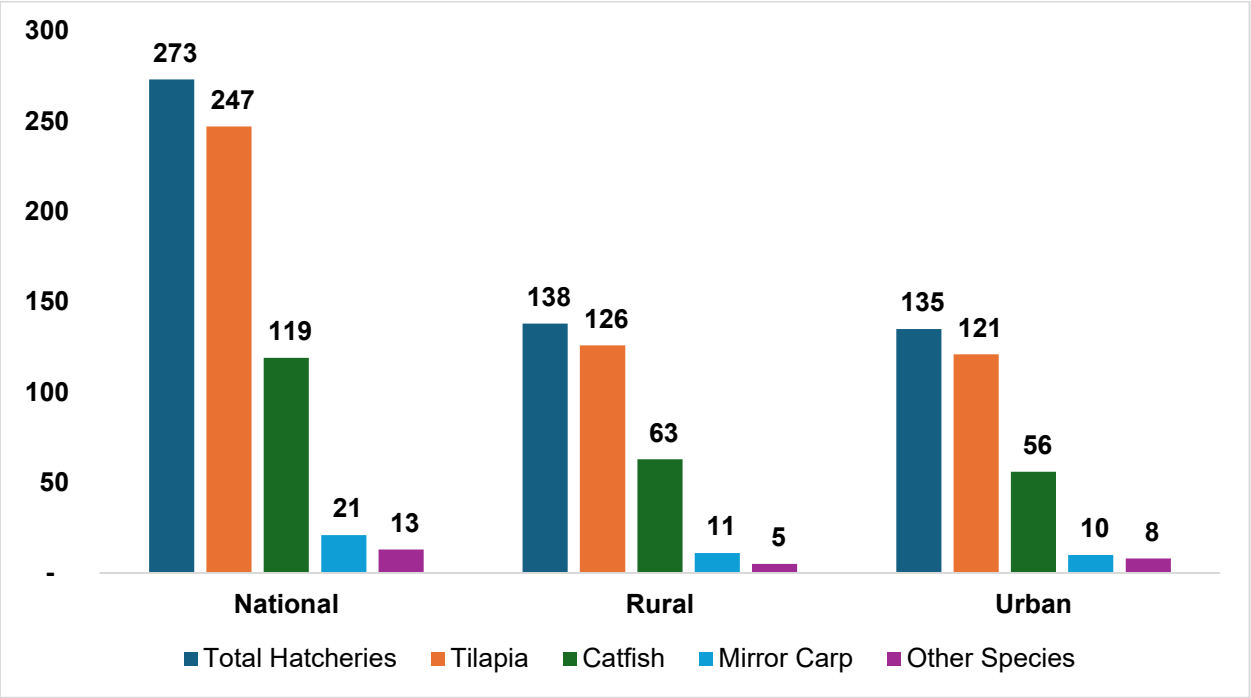
The UAC 2025 findings indicated that there were 273 hatcheries that bred different fish species between July 2024 and June 2025. By species, 247 hatcheries representing 90.4 percent reported to have bred Tilapia, 119 representing 43.6 percent bred catfish, 21 (7.7%) bred mirror carp and 13 (4.8%) bred other fish species **(Figure 6.1)**.

Figure 6. 1: Hatcheries by Species Bred



By location, 138 hatcheries that were in rural areas and 135 hatcheries were in urban areas. **(Figure 6.2)**.

Figure 6. 2: Hatcheries by Location



6.2 Hatcheries Installed Seed Production Capacity and Actual Seed Production

The UAC 2025 findings indicated that the total installed seed production capacity for hatcheries was 200.1 million seed between July 2024 and June 2025. For the same period, actual seed production was 149.9 million seed **(Table 6.1)**.

6.2.1 Tilapia Hatcheries Installed Production Capacity and Actual Seed Production

The UAC 2025 findings indicated that there were 247 hatcheries that bred tilapia in Uganda with an installed seed production capacity of 172.1 million seeds. The actual production seed production by hatcheries that bred Tilapia was 129.9 million seed.

Similarly, urban hatcheries contributed 80.1 percent of actual tilapia seed production, while rural hatcheries contributed 20.0 percent **(Table 6.2)**.

6.2.2 Catfish Hatcheries Installed Seed Production Capacity and Actual Seed Production

The UAC 2025 findings indicated that there were 119 hatcheries that bred catfish in Uganda with a total installed seed production capacity of 24.6 million seed. The actual seed production of hatcheries that bred catfish was 18.3 million seed.

Hatcheries in rural areas contributed 73.3 percent of catfish seed production, while 26.5 percent was from urban hatcheries **(Table 6.3)**.

6.2.3 Mirror Carp Hatcheries Installed Seed Production Capacity and Actual Seed Production

The UAC 2025 findings indicated that there were 21 hatcheries that bred mirror carp in Uganda with an installed seed production capacity of 3.4 million seeds. The actual production for hatcheries that bred mirror carp was 1.8 million seeds.

Hatcheries in urban areas contributed 57.8 percent of mirror carp seed production while 42.2 percent was from rural hatcheries **(Table 6.4)**.

6.2.4 Other Fish Species Hatchery Production Capacity and Actual Seed Production

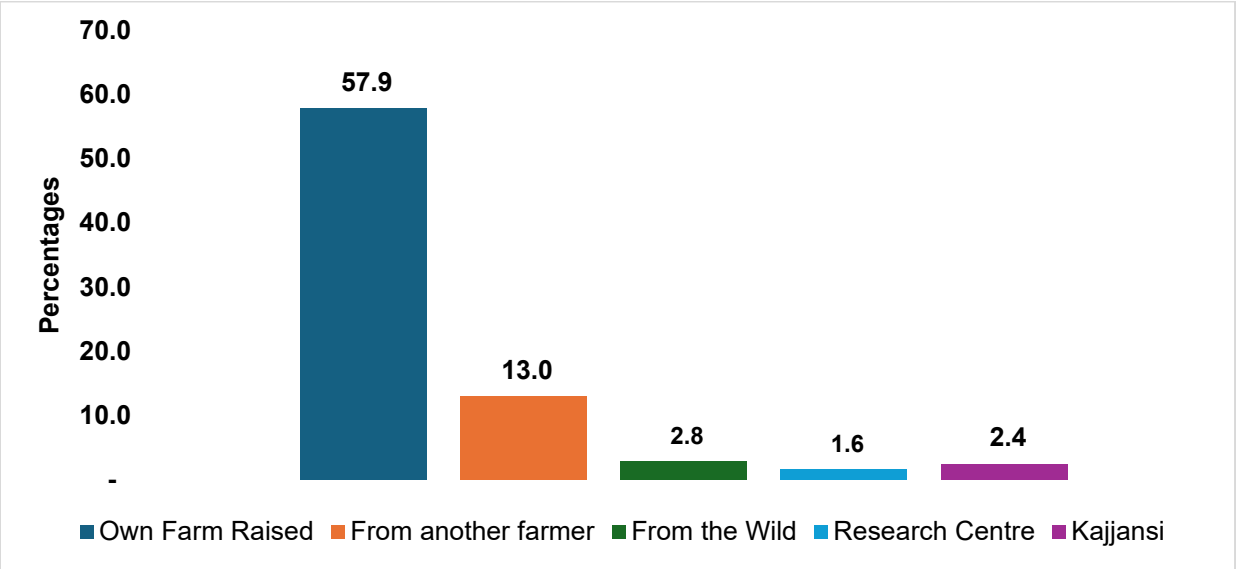
The UAC 2025 findings indicated that there were 13 hatcheries that bred other fish species in Uganda. These hatcheries reported an installed seed production capacity of 41,600.0 and actual seed production of 9,599.9. Hatcheries in rural areas accounted for 63.5 percent of the production and 36.5 percent from urban hatcheries **(Table 6.5)**.

6.3 Source of Broodstock for Tilapia Hatcheries

Broodstock are mature and healthy aquatic organisms used for breeding purposes to produce fertilized eggs or larvae for aquaculture production.

The UAC 2025 findings indicated that among the 247 tilapia hatcheries, 57.9 percent obtained broodstock from own farm, 13.0 percent obtained from another farmer, 2.8 percent from the wild, 1.6 percent from a research centre, 2.4 percent from Kajjansi (ARDC) **(Figure 6.3 and Table 6.6)**.

Figure 6. 3: Source of Broodstock for Tilapia Hatcheries



6.4 Source of Broodstock for Catfish Hatcheries

The UAC 2025 findings indicated that among the 119 tilapia hatcheries, 54.6 percent obtained broodstock from own farm raised sources, 20.2 percent obtained from another farmer, 3.4 percent from the wild, 4.2 percent from a research centre, 3.4 percent from Kajjansi (ARDC) **(Figure 6.4 and Table 6.7)**.

Figure 6. 4: Source of Broodstock for Catfish hatcheries

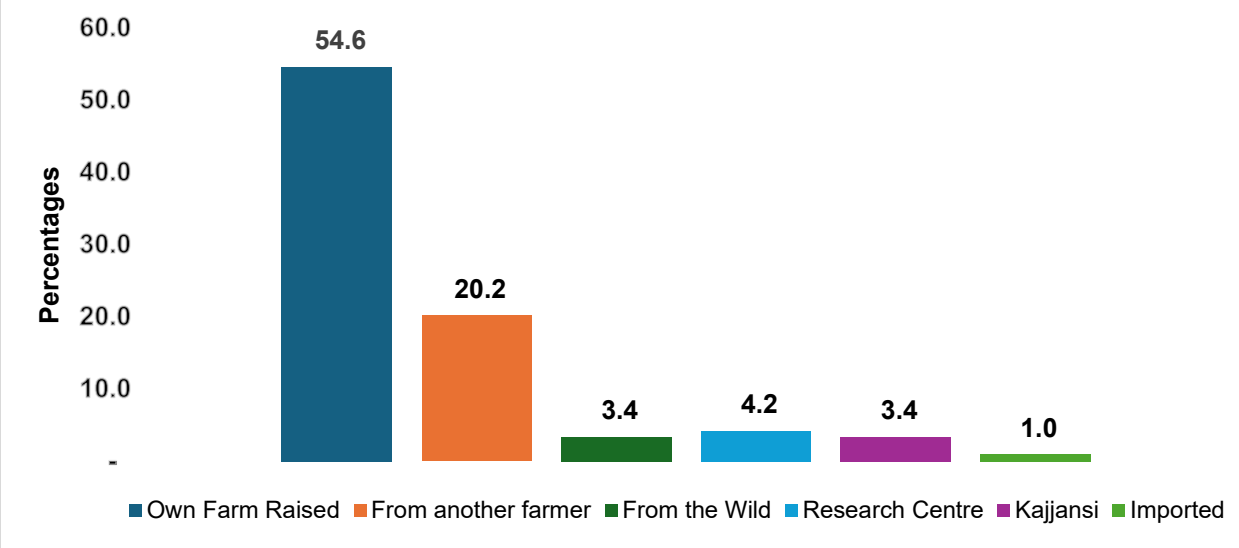


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Table 6. 1: Installed seed Production capacity and seed production, number and percentage

Background Characteristics	Hatcheries	Seed Production (million)		Share (Percent)
		Installed Capacity	Actual	
National	**273**	**200.1**	**149.9**	**100.0**
Location				
Rural	138	55.5	40.1	26.7
Urban	135	144.6	109.9	73.3

Table 6. 2: Tilapia hatcheries Installed production capacity and seed production, number and percentage

Background Characteristics	Number of Hatcheries	Seed Production (million)		Share (Percent)
		Installed Capacity	Actual	
National	**247**	**172.1**	**129.9**	**100.0**
Location				
Rural	126	35.6	26.0	20.0
Urban	121	136.0	104.0	80.0

Table 6. 3: Catfish hatcheries Installed production capacity and seed production, number and percentage

Background Characteristics	Hatcheries (Number)	Seed Production (million)		Share (Percent)
		Installed Capacity	Actual	
National	**119**	**24.6**	**18.3**	**100.0**
Location				
Rural	63	18.6	13.4	73.4
Urban	56	6.0	4.8	26.6

Table 6. 4: Mirror carp hatcheries Installed production capacity and seed production, number and percentage

Background Characteristics	Number of Hatcheries	Seed Production (million)		Share (Percent)
		Installed Capacity	Actual	
National	**21**	**3.4**	**1.8**	**100**
Location				
Rural	11	1.3	0.7	42.2
Urban	10	2.1	1.0	57.8

Table 6. 5: Other fish species hatchery Installed production capacity and seed production, number and percentage

Background Characteristics	Hatcheries (Number)	Seed Production (Million)		
		Installed Capacity	Actual	Share (Percent)
National	13	41,600	9,600	100
Location				
Rural	5	9,600	6,099	63.5
Urban	8	32,000	3,501	36.5

Table 6. 6: Source of brood stock for Tilapia, number and percentage

Background Characteristics	Hatcheries (Number)	Source of brood stock				
		Own Farm Raised	From another farmer	From the Wild	Research Centre	Kajjansi
National	**247**	**57.9**	**13.0**	**2.8**	**1.6**	**2.4**
Location						
Rural	126	59.5	16.7	2.4	2.4	1.6
Urban	121	56.2	9.1	3.3	0.8	3.3

Table 6. 7: Source of brood stock for Catfish, number and percentage

Background Characteristics	Hatcheries (Number)	Source of brood stock				
		Own Farm Raised	From another farmer	From the Wild	Research Centre	Kajjansi
National	**119**	**54.6**	**20.2**	**3.4**	**4.2**	**3.4**
Location						
Rural	63	54.0	22.2	4.8	6.3	4.8
Urban	56	55.4	17.9	1.8	1.8	1.8

CHAPTER SEVEN: CHALLENGES AND RECOMMENDATIONS

7.1 Challenges Faced by Aquaculture Farmers

The major challenges reported by aquaculture farmers during the census included the following;

i. Access to affordable and suitable financing for aquaculture activities remains limited. Many farmers indicated difficulties in obtaining credit due to high interest rates, lack of collateral, and limited financial products specifically tailored to aquaculture enterprises.
ii. High cost of fish feed; it is widely reported as a major constraint to aquaculture production with many small-scale farmers unable to afford quality feeds consistently.
iii. Limited access to aquaculture extension services, this was reported in the areas of pond management, feeding practices, disease control, water quality management, and harvesting techniques.
iv. Inadequate supply and limited availability of quality aquaculture seed, particularly fingerlings. Farmers cited difficulties in accessing reliable hatcheries and obtaining healthy seed at the required time and quantity.
v. Predators particularly among pond-based fish farming systems. Farmers reported losses caused by birds, reptiles, monitor lizards, and other animals that feed on fish.

7.2 Recommendations

i. Targeted financing towards the aquaculture sector to facilitate accessibility to credit.
ii. Expand extension service delivery models to include private actors, NGOs, and farmer associations, alongside innovative digital platforms.
iii. Increase the hatchery actual production to spur total aquaculture production in the country.

Appendix 1: REFERENCES

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Appendix 2: Inactive Aquaculture farms

During enumeration of the UAC 2025, a total of 17,014 aquaculture farms were enumerated. Out of these, 9,463 (55.6%) farms were active, while 7,551 (44.4%) farms were inactive as per the reference period, (**Appendix Table 2.1)**.

In this Census, a farm was considered an active farm if it stocked fish at any point in time from July 2024 to June 2025.

Appendix Table 2.1: Aquaculture Farms Operational Status

Background Characteristics	All Farms	Operational Status	
		Active Farms	Non-Active Farms
National	**17,014**	**9,463**	**7,551**
Location			
Rural	11,690	6,408	5,282
Urban	5,324	3,055	2,269
Sub-Region			
Acholi	763	315	448
Ankole	1,410	973	437
Buganda	2,148	1,250	898
Kampala	43	20	23
Bukedi	1,136	564	572
Bunyoro	1,413	752	661
Busoga	1,676	1,038	638
Bugisu	642	306	336
Karamoja	136	39	97
Kigezi	745	461	284
Lango	1,730	658	1,072
Madi	65	37	28
Rwenzori	1,340	827	513
Sebei	72	49	23
Teso	1,555	809	746
Tooro	1,343	904	439
West Nile	797	461	336

Appendix 3: Annex Tables

Table 2.1: Geographical distribution of Aquaculture farms by Rural-Urban, Sub-region, and ZARDI

Background Characteristics	Farms	
	Total Number	Percent
National	**9,463**	**100.0**
Location		
Rural	6,408	67.7
Urban	3,055	32.3
Sub-Region		
Kampala	20	0.2
Acholi	315	3.3
Ankole	973	10.3
Buganda	1,250	13.2
Bukedi	564	6.0
Bunyoro	752	7.9
Busoga	1,038	11.0
Bugisu	306	3.2
Karamoja	39	0.4
Kigezi	461	4.9
Lango	658	7.0
Madi	37	0.4
Rwenzori	827	8.7
Sebei	49	0.5
Teso	809	8.5
Tooro	904	9.6
West Nile	461	4.9
ZARDI		
Abi	498	5.3
Buginyanya	1,957	20.7
Bulindi	752	7.9
Kachwekano	461	4.9
Mukono ZARDI	1,155	12.2
Ngetta	973	10.3
Nabuin	39	0.4
Serere ZARDI	809	8.5
Mbarara ZARDI	1,088	11.5
Rwebitaba	1,731	18.3

Table 2.2: Geographical Distribution of Aquaculture Farms by District

District/City	Total Number of Farms	Percent
Abim	8	0.1
Adjumani	12	0.1
Agago	46	0.5
Alebtong	39	0.4
Amolatar	14	0.1
Amudat	7	0.1
Amuria	91	1
Amuru	20	0.2
Apac	15	0.2
Arua	31	0.3
Arua City	31	0.3
Budaka	30	0.3
Bududa	16	0.2
Bugiri	135	1.4
Bugweri	20	0.2
Buhweju	9	0.1
Buikwe	147	1.6
Bukedea	46	0.5
Bukomansimbi	20	0.2
Bukwo	21	0.2
Bulambuli	121	1.3
Buliisa	22	0.2
Bundibugyo	255	2.7
Bunyangabu	74	0.8
Bushenyi	219	2.3
Busia	140	1.5
Butaleja	48	0.5
Butambala	18	0.2
Butebo	44	0.5

District/City	Total Number of Farms	Percent
Buvuma	17	0.2
Buyende	62	0.7
Dokolo	18	0.2
Fort Portal City	80	0.8
Gomba	16	0.2
Gulu	57	0.6
Gulu City	37	0.4
Hoima	50	0.5
Hoima City	21	0.2
Ibanda	77	0.8
Iganga	110	1.2
Isingiro	91	1
Jinja	62	0.7
Jinja City	197	2.1
Kaabong	-	0
Kabale	97	1
Kabarole	258	2.7
Kaberamaido	21	0.2
Kagadi	137	1.4
Kakumiro	116	1.2
Kalaki	67	0.7
Kalangala	13	0.1
Kaliro	42	0.4
Kalungu	16	0.2
Kampala	20	0.2
Kamuli	134	1.4
Kamwenge	143	1.5
Kanungu	127	1.3
Kapchorwa	10	0.1
Kapelebyong	82	0.9

District/City	Total Number of Farms	Percent
Karenga	3	0
Kasese	556	5.9
Kassanda	47	0.5
Katakwi	74	0.8
Kayunga	65	0.7
Kazo	19	0.2
Kibaale	137	1.4
Kiboga	26	0.3
Kibuku	87	0.9
Kikuube	195	2.1
Kiruhura	12	0.1
Kiryandongo	20	0.2
Kisoro	42	0.4
Kitagwenda	30	0.3
Kitgum	27	0.3
Koboko	48	0.5
Kole	206	2.2
Kotido	1	0
Kumi	45	0.5
Kwania	25	0.3
Kween	18	0.2
Kyankwanzi	54	0.6
Kyegegwa	97	1
Kyenjojo	222	2.3
Kyotera	36	0.4
Lamwo	8	0.1
Lira	155	1.6
Lira City	68	0.7
Luuka	69	0.7
Luwero	116	1.2

District/City	Total Number of Farms	Percent
Lwengo	45	0.5
Lyantonde	13	0.1
Madi Okollo	21	0.2
Manafwa	34	0.4
Maracha	103	1.1
Masaka	24	0.3
Masaka City	46	0.5
Masindi	54	0.6
Mayuge	93	1
Mbale	44	0.5
Mbale City	25	0.3
Mbarara	18	0.2
Mbarara City	40	0.4
Mitooma	53	0.6
Mityana	34	0.4
Moroto	3	0
Moyo	9	0.1
Mpigi	39	0.4
Mubende	60	0.6
Mukono	161	1.7
Nabilatuk	9	0.1
Nakapiripirit	2	0
Nakaseke	41	0.4
Nakasongola	10	0.1
Namayingo	32	0.3
Namisindwa	24	0.3
Namutumba	82	0.9
Napak	6	0.1
Nebbi	103	1.1
Ngora	100	1.1

District/City	Total Number of Farms	Percent
Ntoroko	16	0.2
Ntungamo	110	1.2
Nwoya	33	0.3
Obongi	16	0.2
Omoro	24	0.3
Otuke	11	0.1
Oyam	107	1.1
Pader	63	0.7
Pakwach	5	0.1
Pallisa	94	1
Rakai	21	0.2
Rubanda	48	0.5
Rubirizi	137	1.4
Rukiga	47	0.5
Rukungiri	100	1.1
Rwampara	117	1.2
Serere	191	2
Sheema	71	0.8
Sironko	42	0.4
Soroti	77	0.8
Soroti City	15	0.2
Ssembabule	45	0.5
Terego	21	0.2
Tororo	121	1.3
Wakiso	120	1.3
Yumbe	76	0.8
Zombo	22	0.2

Annex Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
National	**65,444**	**100.0**	**53,924**	**100.0**	**11,347**	**100.0**	**111**	**61**
Location								
Rural	18,393	28.1	15,042	27.9	3,243	28.6	88	20
Urban	47,051	71.9	38,882	72.1	8,105	71.4	23	41
Sub-Region								
Kampala	50	0.1	10	0.0	40	0.3	-	-
Acholi	359	0.5	209	0.4	147	1.3	2	-
Ankole	1,391	2.1	1,209	2.2	176	1.6	2	3
Buganda	55,704	85.1	47,383	87.9	8,254	72.7	32	35
Bukedi	893	1.4	446	0.8	440	3.9	5	2
Bunyoro	901	1.4	737	1.4	161	1.4	1	2
Busoga	2,081	3.2	1,561	2.9	512	4.5	7	1
Bugisu	230	0.4	134	0.2	70	0.6	26	-
Karamoja	63	0.1	9	0.0	42	0.4	-	12
Kigezi	271	0.4	199	0.4	67	0.6	4	1
Lango	767	1.2	317	0.6	444	3.9	5	1
Madi	45	0.1	23	0.0	20	0.2	2	-
Rwenzori	586	0.9	507	0.9	74	0.7	5	-
Sebei	33	0.0	10	0.0	11	0.1	11	-
Teso	953	1.5	356	0.7	595	5.2	0	1
Tooro	644	1.0	552	1.0	84	0.7	4	3

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
West Nile	476	0.7	262	0.5	209	1.8	6	-
ZARDI								
Abi	521	0.8	284	0.5	229	2.0	8	-
Buginyanya	3,236	4.9	2,151	4.0	1,034	9.1	49	3
Bulindi	901	1.4	737	1.4	161	1.4	1	2
Kachwekano	271	0.4	199	0.4	67	0.6	4	1
Mukono ZARDI	55,628	85.0	47,326	87.8	8,237	72.6	31	35
Ngetta	1,125	1.7	526	1.0	592	5.2	7	1
Nabuin	63	0.1	9	0.0	42	0.4	-	12
Serere ZARDI	953	1.5	356	0.7	595	5.2	0	1
Mbarara ZARDI	1,516	2.3	1,276	2.4	233	2.1	3	3
Rwebitaba	1,230	1.9	1,059	2.0	158	1.4	9	3
District/City								
Acholi	**359**	0.5	**209**	0.4	**147**	1.3	**2**	**-**
Agago	64	0.1	34	0.1	30	0.3	-	-
Amuru	46	0.1	28	0.1	17	0.1	1	-
Gulu	42	0.1	28	0.1	14	0.1	-	-
Gulu City	65	0.1	24	0.0	40	0.4	1	-
Kitgum	31	0.0	12	0.0	19	0.2	-	-
Lamwo	7	0.0	4	0.0	3	0.0	-	-
Nwoya	21	0.0	15	0.0	6	0.1	-	-
Omoro	27	0.0	22	0.0	5	0.0	-	-
Pader	55	0.1	43	0.1	13	0.1	-	-

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
Ankole	**1,391**	2.1	**1,209**	2.2	**176**	1.6	**2**	**3**
Buhweju	2	0.0	1	0.0	1	0.0	-	-
Bushenyi	780	1.2	751	1.4	28	0.2	-	1
Ibanda	61	0.1	43	0.1	18	0.2	-	-
Isingiro	89	0.1	64	0.1	24	0.2	1	-
Kazo	29	0.0	17	0.0	11	0.1	-	2
Kiruhura	9	0.0	8	0.0	1	0.0	-	-
Mbarara	14	0.0	12	0.0	2	0.0	-	-
Mbarara City	52	0.1	31	0.1	19	0.2	1	-
Mitooma	10	0.0	9	0.0	1	0.0	-	-
Ntungamo	91	0.1	66	0.1	25	0.2	-	-
Rubirizi	112	0.2	96	0.2	17	0.1	-	-
Rwampara	81	0.1	68	0.1	13	0.1	-	-
Sheema	59	0.1	42	0.1	17	0.1	-	-
Buganda	**55,753**	85.2	**47,393**	87.9	**8,294**	73.1	**32**	**35**
Buikwe	41,588	63.5	40,869	75.8	719	6.3	-	-
Bukomansimbi	14	0.0	10	0.0	4	0.0	-	-
Butambala	64	0.1	36	0.1	28	0.2	-	-
Buvuma	18	0.0	14	0.0	4	0.0	-	-
Gomba	30	0.0	23	0.0	7	0.1	-	-
Kalangala	78	0.1	78	0.1	-	-	-	-
Kalungu	14	0.0	11	0.0	3	0.0	-	-
Kampala	50	0.1	10	0.0	40	0.3	-	-

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
Kassanda	76	0.1	41	0.1	35	0.3	-	-
Kayunga	82	0.1	42	0.1	40	0.4	-	-
Kiboga	40	0.1	26	0.0	15	0.1	-	-
Kyankwanzi	877	1.3	738	1.4	139	1.2	-	-
Kyotera	23	0.0	15	0.0	8	0.1	-	-
Luwero	271	0.4	47	0.1	224	2.0	-	-
Lwengo	33	0.1	14	0.0	19	0.2	-	-
Lyantonde	34	0.1	11	0.0	23	0.2	-	-
Masaka	9	0.0	8	0.0	1	0.0	0	-
Masaka City	31	0.0	14	0.0	15	0.1	2	-
Mityana	123	0.2	67	0.1	33	0.3	-	24
Mpigi	1,171	1.8	616	1.1	528	4.7	27	-
Mubende	83	0.1	51	0.1	22	0.2	-	9
Mukono	1,751	2.7	1,355	2.5	396	3.5	-	-
Nakaseke	64	0.1	48	0.1	15	0.1	1	-
Nakasongola	10	0.0	-	-	10	0.1	-	-
Rakai	32	0.0	15	0.0	17	0.1	-	-
Ssembabule	37	0.1	25	0.0	10	0.1	1	-
Wakiso	9,152	14.0	3,208	5.9	5,941	52.4	1	2
Bugisu	**230**	0.4	**134**	0.2	**70**	0.6	**26**	**-**
Bududa	29	0.0	15	0.0	14	0.1	-	-
Bulambuli	63	0.1	37	0.1	12	0.1	14	-
Manafwa	29	0.0	19	0.0	9	0.1	-	-
Mbale	48	0.1	25	0.0	13	0.1	9	-

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
Mbale City	9	0.0	7	0.0	2	0.0	-	-
Namisindwa	10	0.0	8	0.0	2	0.0	-	-
Sironko	42	0.1	22	0.0	17	0.2	3	-
Bukedi	**893**	1.4	**446**	0.8	**440**	3.9	**5**	**2**
Budaka	84	0.1	16	0.0	69	0.6	-	-
Busia	168	0.3	125	0.2	43	0.4	0	-
Butaleja	89	0.1	18	0.0	68	0.6	4	-
Butebo	72	0.1	7	0.0	64	0.6	1	-
Kibuku	246	0.4	162	0.3	82	0.7	-	2
Pallisa	142	0.2	68	0.1	74	0.6	-	-
Tororo	93	0.1	51	0.1	42	0.4	0	-
Bunyoro	**901**	1.4	**737**	1.4	**161**	1.4	**1**	**2**
Buliisa	16	0.0	16	0.0	-	-	-	-
Hoima	307	0.5	297	0.6	10	0.1	-	-
Hoima City	20	0.0	15	0.0	3	0.0	-	2
Kagadi	15	0.0	11	0.0	4	0.0	-	-
Kakumiro	79	0.1	57	0.1	22	0.2	-	-
Kibaale	174	0.3	140	0.3	34	0.3	-	-
Kikuube	186	0.3	145	0.3	40	0.4	1	-
Kiryandongo	4	0.0	4	0.0	-	-	-	-
Masindi	100	0.2	53	0.1	48	0.4	-	-
Busoga	**2,081**	3.2	**1,561**	2.9	**512**	4.5	**7**	**1**

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
Bugiri	452	0.7	360	0.7	90	0.8	2	-
Bugweri	43	0.1	14	0.0	29	0.3	-	-
Buyende	74	0.1	25	0.0	49	0.4	-	-
Iganga	183	0.3	84	0.2	98	0.9	2	-
Jinja	47	0.1	34	0.1	13	0.1	-	-
Jinja City	84	0.1	82	0.2	3	0.0	-	-
Kaliro	27	0.0	16	0.0	11	0.1	-	-
Kamuli	143	0.2	37	0.1	104	0.9	2	-
Luuka	69	0.1	36	0.1	32	0.3	-	1
Mayuge	711	1.1	681	1.3	30	0.3	-	-
Namayingo	30	0.0	27	0.0	4	0.0	-	-
Namutumba	217	0.3	165	0.3	51	0.4	2	-
Karamoja	**63**	0.1	**9**	0.0	**42**	0.4	-	**12**
Abim	37	0.1	5	0.0	30	0.3	-	2
Amudat	5	0.0	0	0.0	4	0.0	-	1
Kaabong	-	0.0	-	-	-	-	-	-
Karenga	-	0.0	-	-	-	-	-	-
Kotido	3	0.0	2	0.0	1	0.0	-	-
Moroto	2	0.0	-	-	1	0.0	-	1
Nabilatuk	8	0.0	-	-	-	-	-	8
Nakapiripirit	1	0.0	-	-	1	0.0	-	-
Napak	6	0.0	2	0.0	4	0.0	-	-
Kigezi	**271**	0.4	**199**	0.4	**67**	0.6	**4**	**1**

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
Kabale	69	0.1	51	0.1	15	0.1	3	-
Kanungu	96	0.1	65	0.1	30	0.3	-	1
Kisoro	10	0.0	8	0.0	1	0.0	1	-
Rubanda	33	0.0	19	0.0	14	0.1	-	-
Rukiga	26	0.0	23	0.0	3	0.0	-	0
Rukungiri	38	0.1	34	0.1	4	0.0	-	-
Lango	**767**	1.2	**317**	0.6	**444**	3.9	**5**	**1**
Alebtong	26	0.0	16	0.0	10	0.1	-	-
Amolatar	11	0.0	6	0.0	6	0.1	-	-
Apac	17	0.0	7	0.0	10	0.1	-	-
Dokolo	9	0.0	6	0.0	3	0.0	-	-
Kole	240	0.4	103	0.2	135	1.2	3	-
Kwania	55	0.1	15	0.0	41	0.4	-	-
Lira	176	0.3	71	0.1	104	0.9	-	1
Lira City	92	0.1	33	0.1	58	0.5	1	-
Otuke	12	0.0	9	0.0	3	0.0	-	-
Oyam	128	0.2	51	0.1	76	0.7	1	-
Madi	**45**	0.1	**23**	0.0	**20**	0.2	**2**	**-**
Adjumani	10	0.0	5	0.0	4	0.0	-	-
Moyo	21	0.0	7	0.0	12	0.1	2	-
Obongi	15	0.0	11	0.0	4	0.0	-	-
Rwenzori	**586**	0.9	**507**	0.9	**74**	0.7	**5**	**-**

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
Bundibugyo	202	0.3	198	0.4	4	0.0	-	-
Kasese	370	0.6	297	0.6	67	0.6	5	-
Ntoroko	14	0.0	11	0.0	3	0.0	-	-
Sebei	**33**	0.0	**10**	0.0	**11**	0.1	**11**	**-**
Bukwo	7	0.0	4	0.0	3	0.0	-	-
Kapchorwa	7	0.0	4	0.0	1	0.0	1	-
Kween	19	0.0	2	0.0	7	0.1	10	-
Teso	**953**	1.5	**356**	0.7	**595**	5.2	**0**	**1**
Amuria	90	0.1	30	0.1	59	0.5	-	1
Bukedea	44	0.1	13	0.0	31	0.3	-	-
Kaberamaido	40	0.1	26	0.0	14	0.1	-	-
Kalaki	77	0.1	23	0.0	54	0.5	-	-
Kapelebyong	90	0.1	7	0.0	83	0.7	-	-
Katakwi	123	0.2	48	0.1	76	0.7	-	-
Kumi	89	0.1	74	0.1	15	0.1	-	-
Ngora	76	0.1	26	0.0	50	0.4	-	-
Serere	226	0.3	81	0.1	146	1.3	-	-
Soroti	82	0.1	24	0.0	58	0.5	-	-
Soroti City	15	0.0	5	0.0	10	0.1	0	-
Tooro	**644**	1.0	**552**	1.0	**84**	0.7	**4**	**3**
Bunyangabu	70	0.1	58	0.1	12	0.1	-	-
Fort Portal City	65	0.1	54	0.1	8	0.1	2	1

Table 5.1: Aquaculture Production in Metric Tonnes, by type of fish species

Background Characteristics	TOTAL		TILAPIA		CATFISH		MIRROR CARP	Other Species
	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Percent	Production (MT)	Production (MT)
Kabarole	201	0.3	181	0.3	19	0.2	1	-
Kamwenge	34	0.1	28	0.1	6	0.1	-	-
Kitagwenda	16	0.0	8	0.0	8	0.1	-	-
Kyegegwa	86	0.1	75	0.1	10	0.1	-	-
Kyenjojo	173	0.3	149	0.3	21	0.2	1	2
West Nile	**476**	0.7	**262**	0.5	**209**	1.8	**6**	**-**
Arua	13	0.0	11	0.0	1	0.0	1	-
Arua City	11	0.0	8	0.0	3	0.0	-	-
Koboko	48	0.1	28	0.1	19	0.2	1	-
Madi Okollo	25	0.0	21	0.0	5	0.0	-	-
Maracha	66	0.1	37	0.1	26	0.2	3	-
Nebbi	88	0.1	64	0.1	24	0.2	-	-
Pakwach	4	0.0	2	0.0	2	0.0	-	-
Terego	10	0.0	4	0.0	5	0.0	1	-
Yumbe	199	0.3	77	0.1	122	1.1	-	-
Zombo	12	0.0	10	0.0	2	0.0	-	-

Appendix 3: Questionnaire

UGANDA BUREAU OF STATISTICS

UGANDA AQUACULTURE CENSUS 2025

QUESTIONNAIRE

UGANDA BUREAU OF STATISTICS
UGANDA AQUACULTURE CENSUS 2025
QUESTIONNAIRE

SECTION 1.0: IDENTIFICATION PARTICULAR

1.1 Holding Particulars

No.	Particulars		Code		
(Qn 01)	District Name				
(Qn 02)	County Name				
(Qn 03)	Sub-county Name				
(Qn 04)	Parish Name				
(Qn 05)	Village Name				
(Qn 06)	Enumerator Name				
(Qn 07)	Name of the Farm				
(Qn 08)	Farm's physical address description				
(Qn 09)	Name of the Respondent				

(Qn 10A) GPS COORDINATES OF THE AQUACULTURE HOLDING (FARM) USING CAPI

North/South (write S for south & N for North in the bold box)								**East**						
		Decimal Degrees							Decimal Degrees					
1				.		.		2			.			

(Qn 11a)	Date of start of Interview		**D**	**D**	**M**	**M**	**Y**	**Y**	**Y**	**Y**
(Qn 11b)	Time starts of Interview	**H**	**H**	**M**	**M**					

Introduction **Statement**

"Hello, My name is …… I work with the Uganda Bureau of Statistics (UBOS). We are conducting the Uganda Aquaculture Census 2025. We are visiting each and every aquaculture farm in the country collecting information relevant to aquaculture farming. This information provided shall be strictly for planning in the aquaculture sector. It takes about 30 minutes to complete the interview. Whatever information you provide will be kept strictly confidential. We would very much appreciate your participation and co-operation in this Census.

Now I would like to Continue with the interview

(Qn 12) What is the ownership status of this aquaculture farm/holding?

Response options Qn 12

Household.....1 go to Sec 2a

(Qn 13) What is your role in this farm?

Response options Qn 13

Household Member 1

(Qn 14)

Is the aquaculture holding/farm for fis
hatchery or grow-out?

1 = Yes, Fish Hatchery Only >>> Section 2a, Sec 4 & Section 10 if Qn 12==1 or Section 2b, Sec 4 & Section 10 if Qn 12==2

2 = Grow out only (Skip Section 10)

SECTION 2A: HOUSEHOLD ROSTER (IF Section 1 Q12=1 & Q13=1)

Now I would like to ask you information regarding the people living in this household.
I would like to make a complete list of all the household members including guests who slept here in the last night.
(follow the probing instructions below)

						IF Q05==1	
0	1	2	3	4	5	6	7
					FOR AGE 5+		FOR AGE 3+
PERSON ID	Name of the Household member ENUMERATOR: ASK IF ALL MEMBERS ARE LISTED	What is the sex of [NAME]? MALE.....1 FEMALE...2	What is [NAME]'s relationship to household head? 1= Head 2= Spouse 3= Son 4 =Daughter	How old is [NAME] in completed years?	Is [NAME] involved in the regular work on the Aquaculture Holding/farm? YES...1 NO....2	What is the residential status of [NAME]? 1=Usual Member 2=Regular Member 3=Guest → go to next member	What level of formal education has [NAME] completed? (REFER TO CODELIST)

PROBING INSTRUCTIONS FOR THE HOUSEHOLD ROSTER (Qn1)

INTERVIEWER!

1. Ensure that all household members are listed, starting from the household head.

2. Use the probing questions below to ensure a complete listing:

a) Are there other persons such as small children or infants that we have not been listed? If yes, what are their names?

b) Are there other people who may not be members of your family such as domestic servants, lodgers or friends who usually live here? If yes, what are their names?

c) Are there any guests or temporary visitors, or anyone else who stayed here last night, who have not been listed? If yes, what are their names?

Codes for Qn.7

1= Never been to school
2=Never completed Nursery/Primary one
3= Nursery
4= P1
5= P2
6= P3
7= P4
8= P5
9= P6
10= P7
11= J1-J3
12= S1
13= S2
14= S3
15 = S4

SECTION 2A: HOUSEHOLD ROSTER Cont'd

IF Q05==1				These questions are not part of the Household Roster			
8	9	10	11	12	13	14	15
FOR AGE 10+	**FOR AGE 10+**	**FOR AGE 10+ & Q09!=99**	**FOR AGE 15+**				
Can [NAME] read and write in any language? 1= Unable to read and write 2= Able to read only 3= Able to read and write 4=Uses Braille	What was [NAME]'s main economic activity between July 2024 to June 2025? **Refer to the Annex**	In this main activity, was [NAME] a(n)… ENUMERATORS READS ALL THE RESPONSES BELOW 1=Employee/Salaried Worker 2=Employer 3=Own Account Worker (independent) 4=Task Worker 5=Unpaid Family Member 6=Trainee/Volunteer/Intern 8=Member of Cooperative -96=Other (Specify)	Has [NAME] ever acquired a formal aquaculture training? YES...1 NO....2	Which household member takes major decisions on the aquaculture holding (farm)?	Are any of the following facilities present on the farm? **Codes for 13** **Multiple Selected** 1= Store 2= Processing unit	What is the main source of income for this household? **Codes for qn. 14** 1= Crop Production 2= Livestock Production 3= Fish catching 4= Aquaculture production 5= Forestry 6= Horticulture	In which year was this farm established?
CODE	**CODE**	**CODE**	**CODE**	**PID**	**CODE**	**CODE**	**YEAR**

SECTION 2B: IDENTIFICATION PARTICULARS - NON HH FARMS (IF Section 1 Q12=2 OR Q13=2)

RESPONDENT PARTICULARS					
2	**3**	**4**	**5**	**8**	**9**
What is your role in this farm? Manager.....1 Hired worker.....2 Supervisor.....3	Sex of respondent [1=Male, 2=Female] Male.....1 Female.....2	Level of education of the respondent **Codes for Col 7** 2=Never completed Nursery/Primary one 3= Nursery 4= P1 4= P1 5= P2 6= P3 7= P4 8= P5 9= P6 10= P7 11= J1-J3 12= S1	What is the ownership status of the farm? **Response options Qn 5** Sole Proprietorship.....1 Partnership.....2 Private Limited Company.....3 Public Limited Company.....4 Statutory Corporation.....5 Quasi Corporation .....6 General Government.....7 Cooperative.....8 Religious Organization.....10 Non-Government Organization.....11 Public-Private Partnership (PPP).....14 Community Based Organization (CBO) 15	Are any of the following facilities present on the farm? **Codes for 8** **Multiple Selected** 1= Store 2= Processing unit 3= Feed Mill 4=None of the Above -96= Others, Specify	In which year was this farm established?
CODE	**CODE**	**CODE**	**CODE**	**CODE**	**YEAR**

SECTION 3A: AQUACULTURE PRODUCTION METHODS/SYSTEM (IF Section 1 Q14!=1)

Aquaculture Production Method						***Water Use & Water Quality Management***	
1	**2**	**3**	**4**	**5** **If Q3==1**	**6**	**7**	**8** **if 7=3 & or 4**
PDN METHOD ID	**PRODUCTION METHOD/SYSTEM** *Do you have [PRODUCTION METHON/SYSTEM] on the Farm?* Yes...1 No.....2 >> Next Line	Did you carry out aquaculture production using [PRODUCTION METHOD] between July 2024 to June 2025? Yes...1 No.....2 >> 4 & 17 Only	How many [PRODUCTION METHOD] do you own including those that were rented in by the holding but excluding those rented out? *[Enumerator, ask for both stock and unstocked production units]*	How many [PRODUCTION METHOD] were stocked for raising aquaculture species between July 2024 to June 2025?	For PRODUCTION METHOD], what aquaculture species were cultured between July 2024 to June 2025? **SELECT ALL THAT APPLY** Tilapia .....1 Cat fish.....2 Mirror carp.....3 Silver Carp.....4 Rainbow Trout .....5 Grass Carp.....6 Others (Specify).....-96	What is the main source of water for [PRODUCTION METHOD] between July 2024 to June 2025? **Multiple Select** Rain fed.....1 Ground Water/Well water … 2 Lake.....3 River ... .4 Swamp.....5 Spring .....6 Others specify.....96	What is the name of the water source? L. Victoria.....1 L.Kyoga.....2 L.George .....3 L. Albert.....4 R.Nile.....5 Others, Specify.....96
		CODE	**NUMBER**	**NUMBER**	**CODE**	**CODE**	**CODE**
1	Ponds						
2	Tanks						
3	Cages						
4	Aquaponics						
5	Rice-cum						
6	Dams/Reservoirs						

SECTION 3A: AQUACULTURE PRODUCTION METHODS/SYSTEM - CONTINUED

Questions 9 - 17 should be asked for land-based production systems {i.e., if Qn2== 1, 2, or 3}

9	10 If Q9==1	11 If Q10==1	12 If Q10==2	13	14 If Q13==1	15 If Q13==1	16
What is the method employed by the farm to improve water quality for [PRODUCTION Method/System], in order of importance? Fertilization.....1 Liming of Ponds ...2 Flushing 3	What type of fertilizer(s) were used between July 2024 to June 2025? ***SELECT ALL THAT APPLY*** *Organic Fertilizers ....1* Inorganic Fertilizers..2	Which of the following organic fertilizer types did the farm apply in the reference period? *(Select All that Apply)* Poultry droppings...1 Animal Dung.....2 Cow dung.....3	What are the common types of inorganic fertilizers (chemical) used by the farm in the reference period? **Select All that Apply** Urea + TSP.....1 Urea + DAP.....2 Urea Only.....3	Did the farm carry out water treatment for land based [PRODUCTION METHOD/SYSTEM] between July 2024 to June 2025? Yes..1 No..2	How often did the farm carry out water treatment for [PRODUCTION METHOD/SYSTEM] between July 2024 to June 2025? Less than 2 times .....1 3-5 times 2	Which of the following did the farm use for water treatment for [Production Method/System] between July 2024 to June 2025? ***SELECT ALL THAT APPLY*** *Alum.....1* Zeolite.....2 Rock Salt .....3 Salt.....4	What is the common method o handling discharged wate from [PRODUCTION METHOD/SYSTEM]? Recycled .....1 Irrigation of crops.....2 Discharge into water bodies/wetland (treated) .....3 Discharge into water bodies/wetland (untreated) .....4 Others specify.....96
CODE	**CODE**	**CODE**	**CODE**	**CODE**	**CODE**	**CODE**	**CODE**

SECTION 3A: AQUACULTURE PRODUCTION METHODS/SYSTEM - CONTINUED

if Q5<Q4		*Questions 18 – 22 should be administered at farm level*				
17	**17 GPS**	**Land and Farm Ownership**				
For [production System/Methods] not stocked between July 2024 to June 2025, what was the main reason for not stocking them? Lack of funds .....1 Lack of seed .....2 Lack of feed .....3 Resource/money constraints.....4 Disease outbreak .....5 Unfavorable weather conditions .....6 Poor water quality .....7 Government restrictions/regulations .....8 Market constraints (low demand/prices).....9	ENUMERATOR: CAPTURE GPS COORDINATES OF THE PRODUCTION METHOD/SYSTEM USING CAPI **NB: GPS Shall be captured for only Ponds, tanks, Aquaponics, rice-cum culture and dams/reservoirs**	18 What is the land tenure on which the Aquaculture production is carried out? ***SELECT ALL THAT APPLY*** Customary.....1 Freehold.....2 Leasehold.....3 Mailo.....4 Others (specify)..-96	19 What is the total land area (in acres) where aquaculture activities are undertaken on the aquaculture holding/farm?	20 Is integration practiced at the aquaculture holding/farm? ***SELECT ALL THAT APPLY*** Yes, with rice .....1 Yes, with poultry .....2 Yes, with livestock.....3 Yes, with Crops.....4 Yes with others, specify..5 No.....4	21 What was (is) the main source of energy utilized for the aquaculture activities between July 2024 and June 2025?	22 What is the average distance in Kilometers from the farm to the nearest motorable road?
CODE	**CODE**	**CODE**	**CODE**	**CODE**	**CODE**	**CODE**

Codes for Qn.21

National grid connection...1
Local Min Grid.....2
Solar System.....3
Electric Generator 4
Biogas.....5
None 6

Codes for Qn.22

Less than 1km.....1
Between 1-3km.....2
Between 3 - 5km.....3
Above 5km.....4

SECTION 3B: AQUACULTURE SPECIES (IF Section 1 Q14!=1)

Aquaculture Production Method			Aquaculture Seeds		
1	2	3	4	5	5A
ITEM CODES	**AQUACULTURE SPECIES**	**ENUMERATOR:** Confirm the species that are cultured by the farm in the different production methods Yes..1 No..2	What is/was the main purpose of production for [AQUACULTURE SPECIES]? Mainly for sale.....1 Only for own Consumption……2 Mainly own Consumption……..3 Bait.....4	What was the type of fish seed for [AQUACULTURE SPECIES]? **SELECT ALL THAT APPLY** Fry.....1 Fingerling.....2 Juveniles 3	What was the sex of the [FISH SEED]? Mono sex.....1 Mixed Sex.....2 Don't know.....-98
		CODE	**CODE**	**CODE**	**CODE**
1	Tilapia				
2	Cat fish				
3	Mirror cap				
4	Silver Carp				
5	Rainbow Trout				
6	Grass Carp				
96	Others (Specify)				

SECTION 3B: AQUACULTURE SPECIES - CONTINUED

Aquaculture Production Method			Aquaculture Seeds				
1	2	3	6	7 {if qn 6 == 2-7}	8 If Q7==1		
ITEM CODES	**AQUACULTURE SPECIES**	**ENUMERATOR:** Confirm the species that are cultured by the farm in the different production methods Yes..1 No..2	What was the main source of the [FISH SEED] for [AQUACULTURE SPECIES]? Own production.....1 Private hatchery .....2 Government.....3 Imported.....4 Kajjansi ARDC 5	Did you buy the [FISH SEED] for [AQUACULTURE SPECIES] to stock between July 2024 to June 2025? Yes..1 No..2	What was the average price in UGX of each piece of [FISH SEED] for [AQUACULTURE SPECIES]?		
		CODE	**CODE**	**CODE**	**UNIT OF MEASURE**	**PRICE (UGX)**	
1	Tilapia						
2	Cat fish						
3	Mirror cap						
4	Silver Carp						
5	Rainbow Trout						
6	Grass Carp						
-96	Others (Specify)						

SECTION 3C: AQUACULTURE PRODUCTION UNITS *(IF Section 1 Q14!=1)*

Aquaculture Production Unit						
1	2	3	4	5	6	7 if qn 6==1
PDN METHODS/SYSTEM ID	**PRODUCTION METHOD/SYSTEM** ***IT Please Note:*** *Only Production Methods Selected in Section 3a should appear in this section 3a*	Production Units ID *IT Please Note: The Roster for production units under each production method/system should depend on Qn.5 of Section 3a. I.e., Number of Production Units that were stocked for raising aquaculture species between July 2024 to June 2025?*	**Production Unit name:** Now I would like to list all the production Units that were stocked between July 2024 and June 2025 **NB: Enumerator, please probe to confirm the correct description for each production unit as per the respondent**	How many Production cycles did you have for [Production Unit description/name] between July 2024 and June 2025? Once .....1 Twice 2	What was/is the type of culture system used in [Production Unit description/name] between July 2024 to June 2025? Polyculture .....1 Monoculture.....2	What is the Aquaculture Species cultured in [Production Unit description/name] between July 2024 to June 2025? **SELECT ALL THAT APPLY** Tilapia .....1 Cat fish.....2 Mirror carp.....3 Silver Carp.....4
1	Ponds	Pond 1				
		Pond 2				
		Pond n				
2	Tanks	Tank 1				
		Tank 2				
		Tank n				
3	Cages	Cage 1				
		Cage 2				
		Cage n				
4	Aquaponics					
5	Rice-cum					
6	Dams/Reservoirs					
-96	Others Specify					
	This roster is triggered by response in Sec3a_Qn5					

SECTION 3C: AQUACULTURE PRODUCTION UNITS - CONTINUED

Aquaculture Production Unit			8 if qn 6==2	9	10	11 if qn.10==1	12 if qn.10==1
PDN METHODS ID	**PRODUCTION METHOD/SYSTEM** ***IT Please Note:*** *Only Production Methods Selected in Section 3a should appear in this section 3a*	Production Units ID *IT Please Note: The Roster for production units under each production method/system should depend on Qn.5 of Section 3a. I.e., Number of Production Units that were stocked for raising aquaculture species between July 2024 to June 2025?*	What was/is the Aquaculture Species cultured in [Production Unit description/name] between July 2024 to June 2025? Tilapia .....1 Cat fish.....2 Mirror carp.....3 Silver Carp.....4 Rainbow Trout .....5 Grass Carp.....6	How many fish seed did you stock for [AQUACULTURE SPECIES] in the [Production Unit description/name] between July 2024 to June 2025?	Did you experience any loss of aquaculture species cultured between July 2024 to June 2025? Yes..1 No.....2	Of the total seed stocked, how many were lost between July 2024 to June 2025?	What were the common causes of loss? **MULTIPLE SELECT** Stress.....1 Diseases.....2 Poor Management .....3 Floods.....4 Drought.....5 Pests and Other Predators 6
			CODE	**NUMBER**	**CODE**	**NUMBER**	**CODE**
1	Ponds	Pond 1					
		Pond 2					
		Pond n					
2	Tanks	Tank 1					
		Tank 2					
		Tank n					

SECTION 3C: AQUACULTURE PRODUCTION UNITS - CONTINUED

			Qn 13 - 17 Apply to only the currently stocked production units {Asked only if Qn.4a ==1}				
Aquaculture Production Unit			13	14	15	16 if Qn 15==1	17 if Qn 15==1
PDN METHODS ID	**PRODUCTION METHOD/SYSTEM**	Production Units ID	What is the average weight (in Kilogram) of [AQUACULTURE SPECIES] in [PRODUCTION UNIT]?	What is the current age in months of the [AQUA SPECIES] in [PRODUCTION UNIT]? *For [AQUA SPECIES] that are less than one month, record 1*	Have you ever weighed the [AQUA SPECIES] in [PRODUCTION UNIT] between July 2024 and June 2025? Yes..1 No.....2 >>18	What was the age in months of [AQUACULTURE SPECIES] in the [PRODUCTION UNIT] when you last weighed? *For [AQUA SPECIES] that are less than one month, record 1*	What was the average weight in grams for [AQUA SPECIES] in the [PRODUCTION UNIT] when you last weighed?
			Kgs	**NUMBER**	**CODE**	**NUMBER**	**NUMBER**
1	Ponds	Pond 1					
		Pond 2					
		Pond n					
2	Tanks	Tank 1					
		Tank 2					
		Tank n					

SECTION 3C: AQUACULTURE PRODUCTION UNITS…..

						For Ponds &Tanks Only		
18	19 if qn 18==1		20 {if qn 18==2}	21		22	23 {If qn.22=1}	24 {If qn.22=1}
What is the shape of the [Production Unit description/name]? Rectangular .....1 Circular.....2	What is the length and width of the [Production Unit description/name]? **UNITS** 1 - Metres 2 - Feet		What is the diameter of the [Production Unit description/name]? **UNITS** 1 - Metres 2 - Feet	What is the depth of the [Production Unit description/name] on the deep end? **UNITS** 1 - Metres 2 - Feet		Did you replace water in the [Production Unit description/name] between July 2024 to June 2025? Yes, Flushing ..... 1 Yes, Continuous flow.....2	How many times did you carry out water flushing between July 2024 to June 2025?	Usually, what fraction of the water is flushed from the [Production Unit Name] each time you flush ? Quarter (1/4) = 1 Half (1/2) = 2
	Length	**Width**		**NUMBER**	**UNIT**	**CODE**	**NUMBER**	**CODE**

SECTION 4: AQUACULTURE LABOUR

Qn1. What is the main type of labour used for aquaculture production between July 2024 to June 2025 ?

1=Own account worker

2=Permanent employees

3=Fixed term employees

4=Short-term and casual employees

							if Q1 ==2 or 3 {Only for Hired workers}
WORK CATEGORY		**2**	**3**	**4**	**8**	**9A**	**9B**
		Did the farm use [WORKER CATEGORY] between July 2024 to June 2025? **YES..1** **NO...2**	On which specific aquaculture activity was [WORKER CATEGORY] engaged in at the holding/farm between July 2024 to June 2025? **SELECT ALL THAT APPLY** Construction .....1 Feeding.....2 Production system maintenance ....3 Sampling / grading .....4 Harvesting.....5 Breeding.....6	How many [WORKER CATEGORY] worked on aquaculture activities between July 2024 to June 2025?	What was the main form of payment to [WORKER CATEGORY] between July 2024 to June 2025? In Cash.....1 In kind payment .....2 Exchange of labour.....3	How frequently do you normally pay [WORKER CATEGORY] who worked on aquaculture activities between July 2024 to Ju ne 2025 ***FREQUENCY OF PAYMENT*** Daily.....1 Weekly.....2 Bi-weekly 3	On average, how much (In UGX) was the holding's [FREQUENCY OF PAYMENT] payment for [WORKER CATEGORY] ?
		CODE	**CODE**	**NUMBER**	**CODE**	**CODE**	**SHS**
Employees/ Hired workers	MALES						
	FEMALES						
	CHILDREN						
Contributing family workers	MALES						
	FEMALES						
	CHILDREN						

SECTION 5: AQUACULTURE PRODUCTION (HARVEST) AND SALES *(IF Section 1 Q14!=1)*

			if Q3==1				
1	2	3	4	5	6	8	
ITEM CODES	**AQUACULTURE SPECIES** ***IT Note*** *- {This roster should automatically pick only the Aquaculture species established to be cultured by the holding from Qn.3 in Section 3b}*	Did the farm harvest any [AQUACULTURE SPECIES] between July 2024 to June 2025? YES..1 NO...2 ► **qn.25**	How often did you harvest [AQUACULTURE SPECIES] between July 2024 to June 2025? **FREQUENCY OF HARVEST** Once a day.....1 Once a week .....2 Twice a week.....3 Once a Month.....4 Twice a Month.....5 Once in 3 months.....6 Once in six months…….7 Once a year .....8 Don't know . .....-98	At what age in months did you start harvesting [AQUACULTURE SPECIES]? Record the number of months	What methods did you use to harvest [AQUACULTURE SPECIES] between July 2024 to June 2025? **Tick All that apply** Scoop nets.....1 seine nets.....2 Pond/Tank Complete drainage….3 Harvesting Baskets.....4 Harvesting buckets.....5 Others (specify).....-96	What is the total quantity of [AQUACULTURE SPECIES] harvested between July 2024 to June 2025? CODES FOR UNITS NUMBER.....1 KG.....2 TONNES.....3	
		CODE		**NUMBER**		**UNIT**	**QUANTITY**
1	Tilapia						
2	Cat fish						
3	Mirror cap						
4	Silver Carp						
5	Rainbow Trout						
6	Grass Carp						
-96	Others (Specify)						

SECTION 5: AQUACULTURE PRODUCTION (HARVEST) AND SALES …..

			{if Qn3==1}		Enabled if Q10==1			Enabled if Q12==1	
1	2	3	9	10	11		12	13	
ITEM CODES	**AQUACULTURE SPECIES** ***IT Note*** *- {This roster should automatically pick only the Aquaculture species established to be cultured by the holding from Qn.3 in Section 3b}*	Did the farm harvest any [AQUACULTURE SPECIES] between July 2024 to June 2025? YES..1 NO...2 ► **qn.25**	What was the average weight (in Kgs) of one [AQUACULTURE SPECIES] at the time of harvest?	Did you consume some of the [AQUACULTURE SPECIES] between July 2024 and June 2025 YES..1 NO...2>>**12**	How much of the [AQUACULTURE SPECIES] harvested between July 2024 to June 2025 was consumed? CODES FOR UNITS NUMBER.....1 KG.....2 TONNES.....3 ***Note:*** *Amount consumed should not be greater than amount harvested.*		Did you sell some of the [AQUACULTURE SPECIES] harvested between July 2024 to June 2025? YES..1 NO...2 ► 16	How much of AQUACULTURE SPECIES] did you sell between July 2024 to June 2025? CODES FOR UNITS NUMBER.....1 KG.....2 TONNES.....3 ***Note:*** *Amount sold should not be greater than amount harvested. Also note that the sum of amount sold and consumed should not exceed amount harvested*	
		CODE			**QUANTITY**	**UNIT**	**CODE**	**QUANTITY**	**UNIT**
1	Tilapia								
2	Cat fish								
3	Mirror cap								
4	Silver Carp								
5	Rainbow Trout								
6	Grass Carp								
-96	Others (Specify)								

SECTION 5: AQUACULTURE PRODUCTION (HARVEST) AND SALES …..

			Enabled if Q12==1	Enabled if Q12==1	
1	2	3	14	15	16
ITEM CODES	**AQUACULTURE SPECIES** ***IT Note*** *- {This roster should automatically pick only the Aquaculture species established to be cultured by the holding from Qn.3 in Section 3b}*	Did the farm harvest any [AQUACULTURE SPECIES] between July 2024 to June 2025? YES..1 NO...2 ► **qn.25**	What is the average price for one [UNIT] of [AQUACULTURE SPECIES]? INSTRUCTION: REFER TO THE UNIT OF QUANTITY USED IN Q13 **INTRUCTION: CONSIDER ALL TYPES OF SALES, INCLUDING PRODUCTION CONTRACTS**	Where do you mainly sell the [AQUACULTURE SPECIES]? Local community market.....1 District Market.....2 Institutional consumers within the district……...3 Middlemen/retailers within the district.....4 Middlemen/Distributer(National).....5 Middlemen/Distributer(EAC & International)……..6 To processors.....7 Direct export by farmer.....8 Others, specify.....-96	Did you experience post-harvest loss of [AQUACULTURE SPECIES] between July 2024 to June 2025? YES……1 NO…….2
		CODE	**SHS**	**CODE**	**CODE**
1	Tilapia				
2	Cat fish				
3	Mirror cap				
4	Silver Carp				
5	Rainbow Trout				
6	Grass Carp				
-96	Others (Specify)				

SECTION 5: AQUACULTURE PRODUCTION (HARVEST) AND SALES …..

			If Q16==1		If Q16==1	
1	2	3	17		18	19
ITEM CODES	**AQUACULTURE SPECIES** ***IT Note*** *- {This roster should automatically pick only the Aquaculture species established to be cultured by the holding from Qn.3 in Section 3b}*	Did the farm harvest any [AQUACULTURE SPECIES] between July 2024 to June 2025? YES..1 NO...2 ► **qn.25**	How much of [AQUACULTURE SPECIES] was lost after harvest between July 2024 to June 2025? CODES FOR UNITS NUMBER.....1 KG.....2 TONNES.....3 *Also note that the sum of amount sold, consumed and post-harvest loss should not exceed amount harvested*		What was the MAIN cause of the loss for [AQUACULTURE SPECIES] between July 2024 to June 2025? Theft .....1 Spoilage.....2 predators .....3 Others Specify...-96	Did you process any of the [AQUACULTURE SPECIES] produced before sell between July 2024 to June 2025? Yes ... 1 No.....2
		CODE	**QUANTITY**	**UNIT**		
1	Tilapia					
2	Cat fish					
3	Mirror cap					
4	Silver Carp					
5	Rainbow Trout					
6	Grass Carp					
-96	Others (Specify)					

SECTION 5: AQUACULTURE PRODUCTION (HARVEST) AND SALES …..

			Processing of Harvested Products				
			If Q19==1		If Qn19==1	For each processed output selected in Qn21	
1	2	3	20		21	22	
ITEM CODES	**AQUACULTURE SPECIES** ***IT Note*** *- {This roster should automatically pick only the Aquaculture species established to be cultured by the holding from Qn.3 in Section 3b}*	Did the farm harvest any [AQUACULTURE SPECIES] between July 2024 to June 2025? YES..1 NO...2 ► **qn.25**	How much of the [AQUACULTURE SPECIES] did you process between July 2024 to June 2025? CODES FOR UNITS NUMBER.....1 KG.....2 TONNES.....3 *Also note that the sum of amount sold, eaten, post-harvest loss and Processed should not exceed amount harvested*		What were the products after processing [AQUACULTURE SPECIES] between July 2024 to June 2025? **Multiple Select** Chilled Fish.....1 Fish Powder.....2 Fish Fillets.....3 Smoked fish .....4 Dried Fish.....5 Salted Fish.....6 Degutted Fish.....7 Fried Fish.....8 Others, specify.....-96	How much of the [Processed Product] was obtained from [AQUACULTURE SPECIES] between July 2024 to June 2025? CODES FOR UNITS NUMBER...1 KG.....2 TONNES...3	
		CODE	**QUANTITY**	**UNIT**	**CODE**	**QUANTITY**	**UNIT**
1	Tilapia						
2	Cat fish						
3	Mirror cap						
4	Silver Carp						
5	Rainbow Trout						
6	Grass Carp						
-96	Others (Specify)						

SECTION 5: AQUACULTURE PRODUCTION (HARVEST) AND SALES …..

			If Qn19==1		If Qn19==1	If Qn 3==2	{if qn 25==2}	{If Qn.26==1}	
1	2	3	23		24	25	26	27	
ITEM CODES	**AQUACULTURE SPECIES** ***IT Note*** *- {This roster should automatically pick only the Aquaculture species established to be cultured by the holding from Qn.3 in Section 3b}*	Did the farm harvest any [AQUACULTURE SPECIES] between July 2024 to June 2025? YES..1 NO...2 ► **qn.25**	How much of the [Processed Product] from [AQUACULTURE SPECIES] was sold between July 2024 to June 2025? CODES FOR UNITS NUMBER.....1 KG.....2 TONNES.....3		What was the average price of each unit of [Processed Product] [AQUACULTURE SPECIES] between July 2024 to June 2025?	What is the main reason why you didn't harvest between July 2024 to June 2025? Death of Stock.....1 Stock Not Ready for Harvest.....2 Theft.....3 Fish escape.....4 Others, Specify.....-96	Do you expect to harvest before the end of June 2025? Yes = 1 No = 2	What is the expected amount [AQUACULTURE SPECIES] that you intend to harvest before end of June 2025 **CODES FOR UNITS** NUMBER.....1 KG.....2 TONNES.....3	
		CODE	**QUANTITY**	**UNIT**	**PRICE**	**CODE**	**CODE**	**QUANTITY**	**UNIT**
1	Tilapia								
2	Cat fish								
3	Mirror cap								
4	Silver Carp								
5	Rainbow Trout								
6	Grass Carp								
-96	Others (Specify)								

Section 6: Aquaculture Feeds *(IF Section 1 Q14!=1)*

			if qn 3==1	{if Qn4==8}					If qn 7==1		If qn 7==1
1	2	3	4	4b	5	6		7	8		9
ITEM CODES	FEED TYPES	Did you use any of the following feed types between July 2024 to June 2025? YES..1 NO...2 ► NEXT LINE	What was the main source of [AQUACULTURE FEED TYPE]?	From which country did you import the [AQUACULTURE FEED TYPE]?	For which aquaculture species was [AQUACULTURE FEED] used between July 2024 to June 2025?	What was the total quantity of [AQUACULTURE FEED TYPE] used between July 2024 to June 2025? CODES FOR UNITS KG.....1 TONNES...2		Did you buy any of the [AQUACULTURE FEED TYPE] used between July 2024 to June 2025? YES..1 NO...2	What was the total quantity of [AQUACULTURE FEED TYPE] bought between July 2024 to June 2025? CODES FOR UNITS KG.....1 TONNES...2		What is t average pr per [unit] [AQUACUL URE FEI TYPE] bought? **Record t Price in UG**
		CODE				**UNIT**	**QUANTITY**		**UNIT**	**QUANTITY**	
1	Commercial Floating Feeds										
2	Commercial Sinking Feeds										
3	Farm made feeds										
4	Natural Feeds/self-feeding										
5	Plants by-product & wastes										
6	Animal by-product & waste (e.g. Offals)										
7	Insect larvae (Non-conventional feeds)										
8	Insects										
-96	Others Specify										

Codes for Qn. 4

Own Production.....1
Outlet/Feed Supplier.....2
Local Government.....3
Central Gov't (OWC, NAADS, MAAIF).....5
NGOs.....6
Manufacturer/factory 7
Directly Imported.....8
Other (specify).....-96

Codes for Qn. 4b

SELECT ALL THAT APPLY

Vietnam.....1
Zambia.....2
Egypt.....3
Brazil.....4
Netherlands.....5
Israel.....6

Codes for Qn. 5

Multiple Selection

Tilapia.....1
Catfish.....2
Mirror carp.....3
Other (specify)...-96

SECTION 7: ACCESS TO AQUACULTURE SERVICES *(IF Section 1 Q14!=1)*

Extension Service	2	3
	Between July 2024 to June 2025, did the holding/farm receive any extension service on [EXTENSION SERVICE]? YES...1 ► NO...2 ► NEXT LINE	What was the main source of [EXTENSION SERVICE] between July 2024 to June 2025? Government Extension Worker.....1 Private Extension Worker.....2 Aquaculture farmers Associations.....3 Fellow Aquaculture Farmer.....4 NGOs.....5 Others Specify.....-96
Enterprise selection		
Production facility sitting and construction		
Fish Feed formulation & Feeding management		
Predator & Disease control		
Post harvest handling		
Value addition & Marketing		
Water Quality management		
Fish breeding and hatchery management		
Climate Change awareness and adaptation		
Others specify		

SECTION 7: ACCESS TO AQUACULTURE SERVICES…..

			If qn 6==1	If qn 6==1	If qn 6==1
4	5	6	7	8	9
Does any member of the holding/farm belong to any aquaculture farmers groups or cooperative union? YES..1 NO...2	Did you or any member of the holding/farm had access to agriculture or aquaculture finance between July 2024 to June 2025? YES..1 NO...2	Did you or any member of the holding/farm acquire any aquaculture loan (finance) to be used specifically for aquaculture production between July 2024 to June 2025? YES..1 NO...2	How much money was acquired in the form of an aquaculture loan?	From which sources did you acquire the finance? ***{See Codes below}*** **Codes for Qn.8** Bank.....1 SACCO.....2 Government programs.....3 Private Individual.....4 Microfinance Institution.....5 Aquaculture farmer's cooperatives.....6 Village Saving and Loan Associations..7 Others Specify.....-96	What did you actually use the money for? ***{See Codes below}*** **Codes for Qn.9** Preparing Production Unit..1 Feeding.....2 Treatment.....3 Acquiring Equipment.....4 Acquiring Seed.....5 Others Specify.....-96
CODE	**CODE**	**CODE**	**UGX**	**CODE**	**CODE**

Section 8: Aquaculture Equipment

				if Q3==1	if Q4==1
1		2	3	4	5
Enumerator, Please confirm the production methods that the holding has? **SELECT ALL THAT APPLY** Pond.....1 Tanks.....2 Aquaponics.....3 Rice-cum.....4 Pens.....5 Cages.....6 Dams/Reservoirs.....7	ITEM CODES	ITEMS ***IT Note:*** ***1. If Qn1==1-4 Ask Items (4 - 96)*** ***2. if Qn1==5-6, ask Items (1-3) & (10-96)***	Did you use [EQUIPMENT TYPE] between July 2024 to June 2025? YES..1 NO...2 ► NEXT LINE	What was the source of [EQUIPMENT TYPE] between July 2024 and June 2025 Owned.....1 Private Hired.....2 Government Provided.....3 Other (specify).....-96	How many [EQUIPMENT TYPE] are owned by the farm?
	1	Boat			
	2	Life Jackets			
	3	Boat engines			
	4	Aerators			
	5	Seine net			
	6	Chest waders			
	7	Hapas			
	8	Water pumps			
	9	Fish Graders			
	10	Harvesting baskets			
	11	Harvesting crates			
	12	Weighing machine			
	13	Generator			
	14	Harvesting Net			
	15	Predator nets			
	16	Scoop nets			
	17	Water testing kit			
	-96	Others, Specify			

SECTION 9: HATCHERY MODULE *(IF Section 1 Q14!=2)*

	1	2	3	4
Production Method	Did you carry out hatchery production using [PRODUCTION METHOD/SYSTEM] between July 2024 to June 2025? 1 = Yes 2= No>> NEXT LINE	Do you have [PRODUCTION METHOD/SYSTEM] for the following fish hatchery growth stages? **Growth Stages** 1=Raising breeding stock 2= Nursing 3=Brood stock reconditioning 4=Reproduction -96=Others	How many [production method] were used for [Growth Stage] between July 2024 to June 2025? *THESE INCLUDE BOTH THE PRODUCTION UNITS WITH BROODSTOCK AND THOSE THAT ARE USED FOR INCUBATION*	What was the Aquaculture Species produced using [production Method] *SELECT ALL THAT APPLY* Tilapia .....1 Cat fish.....2 Mirror carp.....3 Silver Carp.....4 Rainbow Trout .....5 Grass Carp.....6 Others (Specify).....-96
	CODE	**CODE**	**NUMBER**	**CODE**
Ponds				
Tanks				
Others, Specify				

SECTION 9: HATCHERY MODULE - SPECIES ROSTER

ID		6	5		7	8	9	10	11 if qn 10==1	
	Aquaculture Species	**ENUMERATOR:** Confirm if the hatchery produced the following Aquaculture species between July 2024 to June 2025? 1 = Yes 2= No>> NEXT LINE	What was the total number of broodstock cultured at the facility for [AQUACULTURE SPECIES]		What was the target seed production capacity of the hatchery for [AQUACULTURE SPECIES] between July 2024 and June 2025?	How much of the [AQUACULTURE SPECIES] seed did you produce between July 2024 to June 2025?	What is the Source of brood stock for [AQUACULTURE SPECIES]? **SELECT ALL THAT APPLY** 1 = Own farm raised 2= From another farm 3=From the wild 4= research centre 5= Kajjansi 6=Imported -96 = Others, Specify	Did you sell some of the fish seed for [AQUACULTURE SPECIES] produced? 1 = Yes 2= No	How much of the fish seed fo [AQUACULTURE SPECIES] did you sel between July 2024 to June 2025?	
			FEMALE	**MALE**					**Fry**	**Fingerling**
1	Tilapia		**NUMBER**	**NUMBER**	**NUMBER**	**NUMBER**	**CODE**		**NUMBER**	**NUMBER**
2	Cat fish									
3	Mirror cap									
4	Silver Carp									
5	Rainbow Trout									
6	Grass Carp									
-96	Others (Specify)									

SECTION 9: HATCHERY MODULE - SPECIES ROSTER…..

	if qn 10==1	if qn 12==3	if qn 10==1	if Sec 1 Q14==3		**For Tilapia Only**	
ID	12	13	14	15	16	17	18
	To whom did you sell the seed for [aquaculture species]? **Select all that apply** 1 = Government 2= Local aquaculture farmers	To which country did you sell? **Select all that apply** 1=Dr. Congo 2= Kenya 3=Rwanda	What is the average Price per fingerling for each [Aquaculture SPECIES] (Ugx)	How much fish seed was retained at the farm for grow out between July 2024 to June 2025?	What is the survival rate (in percentage) of the fish seed produced for [AQUACULTURE SPECIES] using [production unit]?	Does this hatchery do sex reversal treatment for [AQUACULTURE SPECIES]? 1 = Yes 2= No	What waste management method was employed by the hatchery **SELECT ALL THAT APPLY** 1 = Disposed of in water body 2= Disposed of in swamp/stream 3=Recycled back to the hatchery 4=Used as fertilizer for crops -96= Others specify
1							
2						[redacted]	
3							
4							
5							
6							
-96							

SECTION 10: AQUA-CLIMATE CHANGE

1	2 {if qn1==1}	3	4	4b {If Q4==1)
Have you observed any changes in climate patterns i.e. temperature and rainfall changes, in your village compared to over 10 years ago? 1= Yes 2= No	How do the current climate patterns in your area differ from those of 10 years ago and beyond? ***MULTIPLE SELECT*** 1= Temperature Increases/hotter days 2= Rain Increases/Heavier rain	Are you aware of how change in climate affects Aquaculture production? 1= Yes 2= No	Did your village experience any climate related hazard i.e flood, drought, landslide, windstorm, inadequate rain etc between July 2024 and June 2025? 1= Yes 2= No	What climate hazards were experienced between July 2024 and May 2025?
CODE	**CODE**	**CODE**	**CODE**	**CODE**

SECTION 10: AQUA-CLIMATE CHANGE – PRODUCTION METHODS

	5 if qn 4==1	6 if qn 5==1	7a if qn 5==1	7b	8a if qn 7a==3	8b
Type of P**roduction Method/System** ***IT Note** - Pick **ONLY** the Production Methods/System used by the holding in Section 3A*	Was the Aquaculture production by [PRODUCTION METHOD] affected by any climate related hazards between July 2024 and May 2025? 1= Yes 2= No>>10	What climate hazards affected aquaculture production by [PRODUCTION METHOD] between July 2024 and May 2025? ***Multiple Select*** Drought.....1 Flood.....2 Mud/Land slide.....3 Erratic/irregular rain.....4 Storms.....5 Other (specify)..... -96	How did the hazards affect aquaculture production by [PRODUCTION METHOD] between July 2024 and May 2025? ***Multiple Select*** Dry ponds/Inadequate water ..... 1 Ponds flooding ..... 2 Loss/Death of fish .....3 Increased disease incidences ..... 4 Slow fish growth .....5 Increased cost of farming ..... 6 Shortage of fish meal .....7 Silting of ponds .....8 Rising water levels ..... 9 Changes in water salinity.....10 Rising water temperature .....11 Conflict with people for water .... 12 Other (Specify) ..... -96	Total Number of [PRODUCTION METHOD] affected?	How many fish were lost/killed by [PRODUCTION METHOD] due to the climate change effects experienced between July 2024 to June 2025?	What is the estimated unit market price of fish that was lost/killed by [PRODUCTION METHOD] due to climate change hazards experienced between July 2024 to May 2025?
	CODE	**CODE**	**CODE**	**NUMBER**	**NUMBER**	**NUMBER**
Ponds						
Tanks						
Cages						
Pens						
Hapas						
Aquaponics						

SECTION 11: AQUA-CLIMATE CHANGE – PRODUCTION METHODS.....

	9	10
Type of P**roduction Method/System** ***IT Note*** *- Pick* ***ONLY*** *the Production Methods used by the holding in Section 3A*	What adaptation and mitigation strategies have been adopted by the farm to reduce the effects of climate related events on aquaculture production? ***Codes for Qn.9*** ***Multiple Select*** Change species ……...1 Shifting location of production system ……2 Agro-aquaculture Integration ……...3 Alternative feeding materials ……..4 Genetic improvement i.e.. Adoption of temperature resistant species……5 Reduced number of ponds .....6 Stopped fish farming ……..……7 Drilled/dug water system ……..……8 Aquaculture Insurance ……..……9 Other (specify) ……..……..-96	What is the main type of environment or landscape where the [PRODUCTION METHOD] is located? ***Codes for Qn.10*** ***Multiple Select*** Wetland……..……1 Valley……2 Flat dryland……..3 Lake/River……4 Other (specify)……..-96
	NUMBER	**UGX**
Ponds		
Tanks		
Cages		
Pens		
Hapas		
Aquaponics		